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SUBJECT.—“The tactics of street fighting as applied to Eastern countries.

MOTTO—“*Dum Spiro Spero*”

Before discussing the particular reference of street fighting in eastern countries, it will be as well to touch briefly on the general subject of street fighting in warfare and the probability of its occurrence as an incident in the course of a modern campaign.

Street warfare may be defined as a struggle taking place between two armed forces, or between an armed force and a hostile and belligerent population, for the domination and control of a large centre of population.

From a study of history and a consideration of modern conditions it appears that street fighting on any large scale between organised forces is very improbable in the future. The fate of large towns and cities has in the past, generally been dependent on the issue of battles in their vicinity and, under modern conditions, will be more so in the future. Even in the event of sieges the long range of modern weapons compels the issue to be decided on the

fortifications, which are now-a-days constructed some miles outside the place they are designed to protect; and, when once these defences fall, the defender is unlikely to withdraw his garrison for a hand to hand struggle in the streets of the city. Should, indeed, he do so, it is improbable that the attacker would subject his troops to the heavy loss and demoralization involved in several days street fighting, but would resort to a threat of bombardment in order to compel the surrender or the withdrawal of the hostile forces. This was the action taken by the Germans after driving the French troops into Sedan in August 1870; and we may take it that it will be efficacious so long as there is a constituted authority to which the troops or belligerents in the town will render obedience. Street fighting between organised forces will, of course, take place on occasion as an incident of battle in the struggle for localities, such as villages situated in an area of conflict, but such incidents can hardly be classed with the subject under discussion *i. e.* street fighting in cities.

We may conclude, therefore, that street fighting in large cities is likely to be confined to the efforts of troops to overcome the resistance of a hostile population or turbulent section thereof, or possibly of disorganised soldiery who no longer render obedience to any constituted authority. As has been the case in the past, it is also likely to be a characteristic of civil war and revolution, which from its nature will rage in and about large centres of population, as witness the desperate fighting in Paris on various occasions, notably in the days of the Commune. It is true that the commander of regular troops faced with the problem of reducing to order a city occupied by desperate foes can resort to bombardment in default of surrender, as in the case of resistance by organised force quoted above; but he will usually be loth to do so owing to the loss of life and property which will ensue with possibly little damage to the recalcitrant element responsible for the resistance and disorder. He may thus be obliged to undertake the subjugation of the city, an opera-

tion which, if resistance is prolonged, means hard hand to hand fighting, heavy loss and possibly some demoralization to his troops owing to difficulty of control and temptation to loot and rapine.

Before proceeding to discuss the tactics appropriate to street fighting it will be as well briefly to note the main characteristics of large cities regarded as a scene of military operations. The chief characteristic of such localities is the limitation imposed on free movement by the blocks of continuous buildings which together go to form a town or city of any kind. Next in importance is the cover from view and fire afforded by these buildings to men who, from windows and roofs, can, with little risk to themselves, deny or render most hazardous the passage of the roads commanded by their fire. Thirdly, the difficulty of communication and co-operation between troops separated by even only one block of buildings. The difficulties created by the above characteristics are generally accentuated in Eastern Cities with their lack of spacious communications, narrow streets and tortuous alley ways often ending in mere cul-de-sac. Add to this the inner gardens and court yards, commanded from all sides, as well as the irregular and fantastic description of rabbit warrens which are the outcome of the social customs of the inhabitants of most eastern cities and we can easily imagine that street fighting, culminating possibly with the systematic hunting down of armed desperadoes, may well prove an undertaking as costly and dangerous as distasteful and possibly also demoralizing to the troops engaged upon it.

Arguing from the general question to the particular one of street fighting in eastern cities, as it may affect the Army in India, we may perhaps assume that more than ever is it unlikely that we should have to meet regular troops in this description of warfare. The question of the subjugation of extensive and populous cities is one, however, that might arise under several different conditions, such as, for instance, might have faced the Allies on arrival at Peking in August 1900 had not the Boxer resistance collapsed on

their entry into the city. Or again, might be the case nearer home should the forces of disorder temporarily gain the upper hand in any of the larger cities of the Indian Empire, or even if mob violence necessitated the systematic employment of regular troops to restore order. In discussing methods it is possibly necessary to discriminate to some extent between these two cases, *viz.*, the case in which, subsequent to an action or siege, large numbers of armed men have taken refuge in a city with a view to prolonging their resistance within it and assured of a certain degree of assistance and sympathy from the town people and that of the employment of troops for the restoration of order in the case of rioting by an unarmed mob.

In order to discuss in detail the first of the two problems referred to above, let us place ourselves in the position of a commander who, as the result of an action in the vicinity or of a successful assault on the walls and defences of a large city, is confronted with a situation involving the subjugation of the city now occupied by large numbers of well armed, but probably unorganized men, who may be expected to offer a strenuous resistance at all possible points. These opponents may be expected to adopt methods of a guerrilla type such as the occupation of houses and blocks from the roofs and windows of which fire can be brought on roads, the laying of ambushes and possibly the construction of barricades to further impede the mobility of the troops. Night work in the shape of sniping or attacking piquets may also be expected and a tendency to separate into small bodies to harass and oppose the troops at as many points as possible instead of collecting for a stand up fight will probably be apparent.

If these surmises are correct, it is apparent that systematic measures will have to be taken to clear the city street by street until the last of the belligerents are hunted down. In framing a plan for doing so, as in all other tactical operations, a knowledge of the "ground" is of first importance, indeed, as regards street fighting, it is

more than ordinarily essential, for the lie of a city with its intricate network of streets can seldom be determined by personal observation or reconnaissance which may serve in open country. A ground plan of the city is therefore most important and if spare copies are not available rough reproductions of the leading features should be made for issue to subordinate leaders. Failing a map or plan, resort will have to be made to local guides, who, though certainly a useful adjunct to a plan or map, will prove poor substitutes therefor.

Many Eastern Cities, in China nearly all, are surrounded by high walls pierced only at intervals by gates; these walls present a considerable obstacle, though they are often untenable against modern artillery fire. As this paper deals with street fighting and not the process of siege and assault we will assume that the attacking force, whose action is under consideration, has gained possession of one or more gates and at least a section of the walls of the city. The commander has now the choice between two alternatives *viz.*, (a) to gain possession of the remaining exits and sections of the walls and to clear the city section by section, (b) to "drive" the city in a given direction and clear it of belligerents, who can be pursued as they emerge on the far side. As a variation in either case, it may also happen that the occupation of some particular locality, such as a fort or palace, will offer such tactical or moral advantages as to induce the commander to make its capture his primary objective before undertaking the systematic clearing of the city. As regards the two main lines of action noted above, (a) involves considerable dispersion of force, but, if feasible offers the more certain and substantial results, (b) would require fewer troops and probably also result in fewer casualties; for the enemy having a "golden bridge" of escape left them would probably put up a less strenuous resistance than if cornered in the purlieus of the city. With an adequate force of cavalry to take up the pursuit on the far side, it is the course which would probably be adopted in the majority of cases. In the case of an un-

walled town, the actual limits of which are hard to determine the task of surrounding and preventing egress would be even more difficult and extravagant of troops. The choice between the above alternatives will depend on the size of the force at the commander's disposal, the political considerations as to the degree of punishment to be inflicted on the opponents and the probability of the enemy, should they effect their escape, reuniting in sufficient numbers to cause further annoyance.

As an historical instance bearing on the alternatives considered above the action of the British force after effecting a lodgement at the Kashmir Gate of Delhi in 1856 is interesting. A consideration of the force at the disposal of the British Commander and of the somewhat precarious foothold that had been obtained in the city, at once makes it clear that a movement to hold all the exits and hem the mutineers within the city was quite out of question. Without going into details, the action decided upon was a movement west along the main wall to seize the Mori bastion and Lahore Gate and an offensive to take the Jama Masjid. We read that the movement along the walls was to a great extent of a protective nature, owing to the fear of a counter-attack from the western gates of the city via the Sabzimandi against our, now practically defenceless, camps behind the ridge. As regards the choice of the Jama Masjid as an objective, it was possibly considered that the moral effect of its capture would be great, though indeed it also occupies a central and commanding position. That the fort, which tactically is the dominant feature of the city, was not chosen was probably due to its strength and the idea that an assault on it was hopeless until a firmer footing had been gained in the city itself. The course of the subsequent operations would appear to justify this view and the instance is instructive as showing the various factors which will influence a commander in deciding on the broad lines of his plan for the subjugation of a city.

When a decision as to the general plan has been arrived at, the detailed procedure for clearing the city can

be initiated. The first step in this direction will be to secure the main communications. In the event of it having been decided to occupy exits and wholly surround the hostile belligerents, the obvious course will be to secure communications dividing the city into convenient sections. A separate body of troops can then be allotted to each section or, perhaps preferably, sections can be dealt with serially. On the other hand, if it is intended to "drive" the enemy through and out of the city, the commander will form and allot separate columns to work along all parallel communications running in the required direction.

Having dealt with the plan or "grand tactics" of an operation such as is under discussion, we may turn the question of minor tactics or the actual handling of troops in street fighting. Now in the accounts of street fighting in the past, it is somewhat strange, bearing in mind the peculiarities outlined above, that little can be found on the subject of the measures adopted to overcome the special difficulties. Possibly the lack of coherence inherent in such struggles has militated against an accurate description of method being recorded. In some cases probably method was little in evidence and the decision was gained by weight of numbers or better fighting power rather than by method and superior leading. Such was probably the case in Delhi in 1856 for we read "The system of attack in which we were engaged allowed of no formation being retained. Isolated groups of men, European and native, led sometimes by officers, and often without any leaders, roamed through the narrow streets entering houses from which fire was more than usually severe, * * * *." (Siege of Delhi by Major Griffiths.)

Though street fighting must of necessity resolve itself into a series of desperate encounters, an advantage must accrue to the force which enters on such a struggle with some method, based on sound principles, for overcoming the difficulties of the case. The first point for consideration is the actual progress of a force along a street in face of determined opposition. Now a street, as far as fighting is concerned, is nothing more nor less than a defile with

many of the disadvantages thereof conspicuous in a somewhat pronounced form. For purposes of analogy, the roofs of the houses may be regarded as heights and the windows as minor features from which fire can be brought to bear on the route; while side streets form avenues favourable for ambuscade and sudden attack on the head and flanks of an advancing force. The Sidney Street affair, though not without its humorous aspect, showed the power of resistance of a few desperate men cornered in a town building. It is obvious that to assault house by house, by bursting open a door and rushing the upper storeys and roof will involve inordinate loss should the resistance prove determined and protracted. The obvious alternative appears to be to gain possession of the roofs as the force moves along the street in a manner similar to that by which we piquet the heights overlooking a mountain defile. The windows, minor features, would probably be quickly evacuated when the roofs are occupied and, if not, it is much easier to deal with the occupants of buildings from above by means of a hole in the roof than by storm from below. Barricades would also be quickly rendered untenable by fire from above. Access to the roofs might in some cases prove difficult, but could usually be gained through an unoccupied building or by escalade covered by fire from coigns of vantage previously occupied. In a town built on European lines with blocks of buildings of a uniform height, the clearing of a block, once access is gained to the roof, should be easy. In an Eastern city with its variety of size and shape of house the highest building of a block will, when seized, enable the attackers to command and render untenable the roofs of all the houses in its immediate vicinity. An alternative method of progress, should the houses be obstinately held, would be from house to house from the inside by blowing down or otherwise forcing the party walls separating buildings. This, however, would probably prove a slower and more cumbersome mode of progression.

If the above is accepted, we may now endeavour to trace the progress of a body of troops along a throughfare in face of active opposition. Such opposition is unlikely to extend the whole length of the street, but will occur rather at occasional and favourable points, where preparations have been made for it. The commander's first object will then be to secure the corner houses nearest to him on either side of the road and when access to the roofs has been gained to make himself master of the blocks of which these houses form a part. Leaving a small piquet on either block he can then push on. The rate of progress will of course depend on the opposition encountered, but need not necessarily be as slow as would at first sight appear, for as a few minutes should suffice to occupy any block where resistance is slight or non-existent. It may be argued that leaving piquets on each block will be very extravagant of troops and this is perhaps the case. A commander must, however, use his discretion as to the number of men he can spare and should, if necessary, economise by only piquetting every second or third block. In any case detachments must be left to hold communications in rear and small piquets on commanding roofs overlooking the route traversed will effectually serve this purpose. As regards the actual forcing of obstinately held houses, if a gun can be brought to bear on them the matter is fairly simple, but in narrow streets this will seldom be possible. When not feasible rifle fire must be brought to bear on the roof and windows and under cover of this the house must be rushed, preferably from above by gaining access to and making a hole in the roof; failing which by blowing in a door or party wall.

It is easily apparent that, as in all forms of warfare in close country, the brunt of the fighting will fall to the infantry aided by sappers and to some extent by artillery. As regards other arms, cavalry will be able to do but little in the actual advance; they may, however, be useful to patrol in rear of infantry columns, but, in the case of

a "drive" through a city, their true role will be outside to take up the pursuit as the enemy are driven out.

As stated above, guns will be of greatest value against houses and barricades on which their fire can be brought to bear. An intelligent enemy will, however, be hardly likely to choose such localities for defence, but will rather select position at bends or corners giving insufficient room for the use of artillery. A shielded gun however, can be run up to fire a few rounds at fairly close range and when available a section of guns should be attached to each column. Possibly pack artillery, which is handier in cramped localities and which could on necessity, be got on to a roof would be the most useful form. Should the enemy be in possession of any guns, he may be expected to place them to sweep main communications or possibly, from some coign of vantage, the roofs of houses. Such procedure would probably be best dealt with by posting batteries on such commanding points as may offer to engage his guns as soon as their position is disclosed. A large proportion of guns actually to accompany infantry columns would, however, be inadvisable in any case. Machine guns on account of their handiness and portability will be of especial value should be attached to each column. Sappers will be invaluable and, when available, should always be attached to infantry columns with a large proportion of explosives for forcing walls roofs and doors. In the absence of Sappers special demolition parties should be formed to move near the heads of columns. Ladders and ropes for escalade will also be required for storming houses.

It is difficult to dogmatise on the subject of formations, which will have to be adapted to the exigencies of space. Columns moving along a street should be preceded by a "point" at a short distance, but the need for the normal advanced guard formations is not very apparent as there is no question of allowing time for the main body to deploy, but only for such reconnaissance and protection as will save the head of the column from sudden and

overwhelming fire. In narrow streets any form of extension may be impracticable, but every endeavour must be made to prevent undue crowding at the heads of columns. In relatively wide thoroughfares a series of lines, with men extended to about 1 pace across the total width available, would appear preferable to columns of fours. Artillery and all animals should be kept well to the rear of columns, the guns being sent for when required. Maxims, may be carried by the detachments near the heads of columns if likely to be quickly required.

As previously stated intercommunication will present considerable difficulty and owing to the isolation of columns is of considerable importance. If the plan of piquetting the roofs of the higher buildings be adopted, information as to the progress of co-operating columns can be maintained by flag and semaphore. A conspicuous and commanding building should be designated as a central signalling station to which progress can be reported, and it will be a convenience if the commander could locate his personal headquarters and the reserve at the same place.

As regards night work, it would seldom be of advantage to continue an advance after dark in an unknown town; though darkness might be taken advantage of to blow in or rush the defences of some particular locality, which had offered a determined resistance. It is suggested that as a rule, columns should halt and settle themselves down for the night sometime before dark. The best locality for so doing would be some square or other open spot with piquets on approaches and on the roofs of houses overlooking it. Ordinarily the men would be better out of houses than in them, owing to the delay in turning out and the danger of fire, which is a weapon the enemy might use with fatal effect against men crowded in buildings for the night. The question of leaving our piquets placed during the day must be settled by column commanders according to the exigencies of the situation. On the one hand, there is a danger of piquets being cut up, and, on the other, of the enemy reoccupying buildings

which have been taken at some cost during the day. A piquet of 8—10 rifles on a roof should, however, be able to hold its own except in the case of fire, and a probable compromise would be some form of concentration of piquets into groups of say 25 rifles.

The above appears to be, as far as the exigencies of space admit, an outline of a reasonable method for clearing a town of armed desperadoes, and may be summarized as follows:—

(a) A definite plan by the commander, either for surrounding and clearing the city by sections, or for “driving” it in a given direction.

(b) The allotment of bodies of infantry, assisted by sappers and artillery, to clear the city in accordance with plan decided on by a methodical progress along the main communications.

(c) The manner of such progress to be mainly by occupying the roofs of buildings and clearing the street block by block.

(d) Communications in rear of columns to be kept by a system of piquets posted on the roofs of prominent buildings commanding these communications. The routes themselves to be patrolled by cavalry.

(e) The maintenance of communication between columns by signalling between piquets. A central station at the headquarters of the commander to be established and the reserve located in its vicinity.

(f) A cessation of the advance before dark; the troops of each column to be concentrated in such open space as is convenient, but not crowded into houses. Piquets to be concentrated into groups of 20—25 rifles along communications and cavalry patrols withdrawn to the reserve.

(g) If resistance is continued after the main communications are occupied side streets to be dealt with by columns operating as above and based on the communications already held.

We now come to the second case mentioned earlier in this article, *viz.*, the action of troops against rioters.

Methods in this case will differ materially from those outlined above owing to the different action which may be anticipated by our opponents. The strength of an ill-armed mob depends on numbers and the confidence which numbers and passion inspire; when scattered the courage of the component individuals and groups is apt to evaporate speedily for lack of the encouragement and excitement engendered in large assemblies. Mob tactics will usually be of the shock variety going as far as actual charges, varied by the erection of barricades and acts of incendiarism. Opportunities for inflicting heavy punishment will be afforded to the troops and it follows that methods should be simple and direct. The first duty of an officer detailed for this work will be to get his main body to the scene of the riot and disperse the rioters as quickly as possible; at the same time sending detachments to occupy localities where they are likely to reassemble. The methods for so doing need no discussion; troops being marched direct in formed bodies to the localities and rioters being dispersed by fire or shock action as necessary and in accordance with the exigencies of the particular case. In contradistinction to the action previously discussed, cavalry is, except in very cramped localities, probably the best and most formidable arm for this work. Artillery will seldom be required to come into action, but a few guns judiciously posted have a great moral effect. Subsequent to the dispersion of the main mob, various police duties such as guarding banks, etc. may be required of the troops, who may also have to help in hunting down ringleaders. Adequate reserves should, however, be retained at important road centres with a view to prevent the mob from reassembling.

Though no special tactical methods are involved in the above measures the question of a definite plan and system is of importance. Without such, operations tend to mature as events occur and dangers threaten and can consequently seldom be brought to such a speedy and satisfactory conclusion as if worked on a plan and system, which has been communicated to all concerned prior to their initiation.

In the foregoing paragraphs, it will be noticed that the question of street fighting has been treated purely from the point of view of offensive action and, under the circumstances taken as a basis for discussion, the question of our adopting a defensive role can hardly be accepted. On occasions in the past, however, our troops have been forced to adopt a defensive attitude for the time being in populous centres owing to great numerical inferiority and other disabilities and, therefore, the question may deserve some mention. In such a case we should discriminate between our best line of action and that which has been assumed as the probable form of defensive on the part of our opponents. The guerrilla methods of separation and ambuscade are unsuited to regular troops, who unless greatly outnumbered would not be on the defensive at all. The defensive on our part will be of a temporary nature and we should concentrate in order to reap the advantages of discipline and organization. The question, therefore, resolves itself into one of the selection of a suitable locality for concentration. This will usually be a fort or palace, if such is available, or possibly a block of buildings the surroundings of which favour defence. The principal points to consider, *e. g.*, field of fire, preparation of perimeter, food and water supply, protection against fire etc., are rather matters of the fortification of localities than of street fighting, so need not be discussed in this paper. The defence of the Lucknow Residency and of Arrah are historical instances of such operations in the annals of our Army.

A summary of the methods considered suitable for employment in a struggle taking place within the confines of a large city have now been outlined. The methods advocated are based on deductions, and on some free play of imagination, as to what would occur under the several set of circumstances which might bring about such operations. It is a plagiarism to say that the principles of warfare are the same under all conditions. Street fighting is no

exception to the main principle, that is to establish superior strength at the decisive point and having done so to wear down the resistance of the enemy until he is completely vanquished. The generally accepted methods for carrying this principle into effect are outlined in Field Service Regulations, Part I, which are naturally based on the most usual form of warfare *i.e.*, operations, leading up to a pitched battle in the open. Varying conditions, however, demand some differences in the detail of how to give effect to this principle. Our army, perhaps beyond all others, must be prepared for fighting in strange and often uncongenial surroundings and for this reason the chapters on mountain and bush fighting have been incorporated in our text book. That no mention of street fighting is made therein is, may perhaps be claimed, an argument in favour of the theory advanced, that street fighting on a large scale between regular troops of civilized powers is considered unlikely by our highest military authorities. Or, may be, it is thought that departures] from principles need be so slight as to be apparent to ordinary intelligence and therefore to require no mention. Be that as it may, street fighting, particularly in the East, is a possibility to be reckoned with and deserving of some thought for the reason that we cannot practice it, till the time comes to do so in grim earnest. We practise warfare in hills and plain, in desert and bush country, but the warfare of the city with its concomitant of trespass and forcible entry into peaceful citizens' houses, we cannot simulate for obvious reasons. We can, however, think, and perhaps practise ourselves to some extent by means of an occasional "Exercise" on the subject of street fighting. Most of us have relatively large cities close at hand and exercises in the form of staff tours based on the suppositions, (a) that the remnants of a well armed enemy had taken possession of the city, (b) that the local bad characters had got beyond control and troops were necessary to restore order in the city, might be held and detailed plans for dealing with the situation called for. Similarly, we encour-

age officers to think out minor military operations on the spot when riding, shooting, etc. How many, in riding through the streets of an Eastern city, have considered what action they would take if ordered to advance with a couple of companies to clear the street when opposed by rifle fire from windows and roofs? Most Eastern cities are unattractive spots and the large towns adjoining our cantonments are often "terra incognita" to most officers while, for obvious reasons the rank and file are not encouraged to frequent them; still the fact remains that we may be called on to fight, if not in these identical cities, in others having similar characteristics, and the fact of having given some thought to the matter in peace and at leisure cannot fail to be of assistance when, and if, the time should come for us to carry out a dangerous and withal unpleasant duty. Street fighting on any considerable scale must resolve itself into a series of desperate hand to hand struggles, in which the courage and motherwit of the combatants rather than the skill and training of the leaders may be the most important factor. At the same time the adoption of a definite plan of conquest framed by the commander with due regard to the conditions of the occasion; coupled with a knowledge, attained by some previous consideration, of the nature of the job they will have to tackle, among subordinate leaders must take for success and a reduced death roll in achieving it. Experience has shown that mishaps have frequently occurred owing to a commander and troops operating amid strange and unfamiliar surroundings. Mountains and close jungle may remain new ground to many, but we can hardly plead lack of acquaintance with the main characteristics of large cities, even allowing for the variations due to the idiosyncracies and habits of life of different communities. Though, as has been said, we cannot practice warfare in crowded streets, still the study of a few accounts of struggles which have, in the past, taken place in such surroundings and some little personal consideration of the problem involved should suffice to enable an officer to adapt the

principles of Field Service Regulations to the peculiarities of fighting in the close and congested surroundings of an Eastern city, and thus render him more fitted to carry out a duty which may well fall to his lot as an incident of the profession of arms which he has adopted.

Servia and Turkey.

BY CAPTAIN H. W. YOUNG, 116TH MAHRATTAS.

*(An account of a month in Macedonia between the two
Balkan Wars.)*

SUMMARY.

1. The Turks are not a national entity, but only an army of occupation. No genius for administration. Contrast with the British in India. A power that has no genius for administration must at least possess a high military efficiency. Brief historical survey of the Turkish Empire from the fall of Constantinople to the present day. The Janissaries: their decline, the cause of the break up of the Turkish Empire. The Young Turks: they tried to create an army, but failed. Causes of their failure.

2. Macedonia, Thrace and Epirus, heterogeneous population of. Turkish policy deliberately aimed at preventing combination of these three with Servia, Bulgaria, and Greece, respectively. Success of this policy still the root of Balkan disturbances. The object of the first war to drive the Turk out of Europe, and to divide his territory. Rival claims of the Allies in the partition, and their historical basis.

3. Servia. Her position and her object. Liberation of Christian brethren inclined to be forgotten. Macedonians not at all apt to regard the Servians as Crusaders. Strategic frontiers and their influence on politics. Servia and Austria. Theatre of war. Characteristics of officers and men.

4. The position at the outbreak of hostilities. Allied plans. Turks however take the offensive. Battle of Kumanovo. Description of battlefield. Importance of Kumanovo and its effect on the campaign in Thrace.

5. Servian campaigns in the Sanjak and Albania. Description of country and people. Close paralled with the north-west frontier of India, The march to Durazzo. The "Flying Column".

Servia and Turkey.

6. Rear-guard actions at Prisatz and Prilep. The battle of Monastir. Djavid Pasha and his 2,000 on the hill of Oblakovo.

7. Conclusions.

SERVIA AND TURKEY.

1. When we talk of Turkey, we are rather liable to think of her as a nation, in the same way that we or the French are a nation. This is a mistake. The Turks are not, and never have been, a nation. They are an army of occupation. Not only throughout Syria, Mesopotamia and Arabia is the Turk a foreigner, but he is a foreigner in what we used to know as Turkey in Europe. You may travel from Belgrade to Basra and practically never see a Turkish village. Only in Anatolia and round Constantinople have the Turks formed any permanent communities distinct from the original inhabitants of the country. Everywhere else they are in exactly the same position as the British in India. That is to say, they are a ruling caste differing in race, in habits, in ideals, and in a great many cases in religion from the peoples under them. But they have no genius for administration. Unlike the British, they can see no reason why they should give anything in return for the taxes which feed and clothe them. They rely entirely on military force to keep a hold on the subject countries

Now it is clear that a ruling race, which has no genius for administration and which depends entirely upon military force, must at least keep up a standard of military efficiency sufficient to check the aspirations of any of the subject races to win their freedom by force of arms. The whole history of the Turkish Empire is one long record of the military relations between the ruling caste and the subject peoples.

The Seljuk Turks first appeared in history in the eleventh century, when the quarrels between the Eastern and Western Churches and the consequent weakness of the Byzantine Empire enabled them to advance unopposed in Asia Minor. They were followed in the first-half of the

fourteenth century by the Ottomans, who rapidly swallowed up the remaining scraps of the Byzantine Empire in Asia Minor, and crossed over to Europe on the foolish invitation of the Regent to help him in his civil wars. Having once gained a footing in Europe, they rapidly overran the country, and by the middle of the fourteenth century, the Emperor had nothing left but Salonica and Constantinople, which were captured in 1430 and 1453. The Turks took over the ready-made machinery of government, and for nearly a century managed to keep intact the Empire which they had gained. But this was in no sense due to any administrative ability. From the first they realised that their only strength lay in force, and they evolved a unique system for keeping up an efficient army, and at the same time precluding any possibility of national effort on the part of their subjects. This was the system of the levy of tribute children, and the formation of the Corps of Janissaries. If we imagine the British after the conquest of each successive Indian race, levying every four years a tribute of the pick of the male children between six and nine years of age; depriving Madrassi, Maratha, Bengali, Rajput, Sikh, and Punjabi of the flower of their youth: forming them into a corps in some distant region, say in Kashmir: educating them as Christians: forbidding them to marry or to engage in trade: and subjecting them to no law but implicit obedience to their own officers: we can get a very good idea of what the Janissaries were, and what an admirable weapon they must have been to a despotic government.

But it was only for a century that the Janissaries preserved their original character. First, they were allowed to marry; then their children were admitted into the corps; and, lastly, any Mahomedan could be enlisted, and at the end of the 17th century the levy of children stopped. The natural result of this was that the subject nations, being no longer emasculated by the continual drain on their male population, began to collect bands of insurgents—or patriots—whichever one prefers to call them, and to look to the

day when they should throw off the Turkish yoke. One after another they gained their independence. Hungary, Servia, Roumania, Greece, Bulgaria, and Montenegro established their position as political entities, even Egypt succeeding in setting up a dynasty of her own.

At the outbreak of the war in 1912 all that was left of Turkey in Europe was the portion of the peninsula shown on Map A and of this Albania was practically independent owing to the difficult nature of the country and the untamable character of the Albanian mountaineer. The Turks were threatened with the loss of all their European possessions. But they had begun by that time to realise that a great effort must be made to restore their army to an efficient state. The young Turk party recognised that their military organisation was far behind that of European armies, and that their officers were not in any way up to modern standards. Unfortunately for them, they tried to move too fast. Their chief step was to dismiss the "ranker" officers who at any rate knew and were trusted by their men, and to replace them by young cadets with nothing to recommend them but the fact that they had received slight education on modern military lines. Nothing was done to rectify the hopeless corruption in their administrative services and departments. Time after time, in the war that followed, the troops were starved of food and ammunition. Not that it had always given out; many cases are recorded where there was plenty of both, but it never reached the men owing to the failure of transport and supply arrangements. The young Turks had realised too late the secret of their ancient power, and tried by hasty improvisation on the wrong lines to make a modern fighting organisation out of a mediæval army.

2. Let us now look for a moment at the composition of this remaining portion of the Turkish Empire in Europe. It may perhaps at first sight seem unnecessary to go so much into the study of the political position before we turn to the military operations. But war and policy are so closely connected that no study of war can have any real value unless we remind ourselves of the political causes

which led up to it. Every soldier knows that hand-to-hand conflict, or the threat of hand-to-hand conflict, is the decisive factor in all military operations. It is no good training our men to shoot, unless we can depend upon them to go in with the bayonet when artillery and rifle fire has enabled them to close with the enemy. In exactly the same way, force, or the threat of force, is the decisive factor in international politics. The best diplomacy is helpless unless it can fall back, as a last resort, on military force. War, then, in its relation to policy, has an interest for both soldier and civilian. No civilian, who is ignorant of what war means, can appreciate the effect which it exercises upon diplomacy. No soldier can fully appreciate military operations if he is ignorant of the international relations which have led, and are likely to lead to the employment of force.

Turkey in Europe, as it stood at the beginning of 1912, may be divided into three districts, Macedonia, Thrace, and Epirus, corresponding roughly in population and in national aspirations to their respective neighbours, Servia, Bulgaria and Greece.

At the time that these three States gained their independence, the three corresponding districts were left behind. This was due to a variety of reasons. Most important is the heterogeneous nature of their population. Successive waves of invasion had spread over the country in the later days of the Byzantine Empire, and had resulted in a mixture of races and tongues which is unparalleled in history. This confusion of nationalities was carefully preserved by the Turks, until at last it became impossible to say who was Bulgarian, who was Servian, and who was Greek. Sir Charles Eliot, whose book "Turkey in Europe" is the best introduction to a study of Balkan politics, writing at the close of the nineteenth century, says—"The history of the last 50 years in South Eastern Europe is to a great extent the history of the disentanglement of the Slavonic races from Turks and Greeks, and to this is now succeeding the disentanglement of the Slavonic races from one another." Even language is no test of nationality in this

part of the world, and religion is such an unstable factor that it also has no value. The various branches of the Church were played off against each other with consummate skill. Bishops and schoolmasters were moved about like chessmen. So marked was the success of this policy that, when at last the three States did manage to combine to drive out the common enemy, they inevitably went for each other's throats when it came to partition of his territory. Each in turn had at some period of history governed the whole region: each had a claim which was well worth fighting for: and I think that it is quite clear that the pegging out of these claims was the real motive which induced them at last to unite, against their common enemy.

3. Of the three large States which eventually formed a secret alliance against the Turks—Servia, Bulgaria, and Greece—Servia is the one in which we are most interested at the present time. The Servians are the modern representatives of the greatest of the original invasions of the Balkan Peninsula—the Slav invasion. Though we talk now of the Bulgarians as Slavs, they were originally a perfectly distinct race, probably allied to the Finns. They soon however lost their original language and customs, and became completely Slavised. They twice became the dominant power in the Balkan Peninsula, but were utterly defeated by the Servians in the fourteenth century, and remained vassals of Servia until she in her turn was annihilated at the battle of Kossovo in 1389. For 50 years before this, Servia, under the great Stephan Dushan, was practically mistress of South-Eastern Europe. Stephan was actually leading an army against Constantinople, when he was poisoned in camp, and the collapse of the Servian Empire followed immediately on his death. The battle of Kossovo Polye (the field of the blackbirds), where the Servians were finally conquered by the Turks, is still remembered and mourned by all the southern Slavs. Their ballads turn almost exclusively on the victories of Stephan Dushan, the lamentable defeat of Kossovo, and the exploits of a gentleman called Marko Kralyevitch. At the rear-guard action of

Prilep, which we will come to later, the Servian soldiery were convinced that this hero on his wonderful white horse had appeared from his castle, which overlooks the battlefield, to lead them to victory. No persuasion on the part of their officers could induce them to refrain from an unsupported advance over 900 yards of perfectly flat country without a vestige of cover. It says as much for the unspeakable musketry of the Turkish force as for the judgment displayed by Marko Kralyevitch that this attack was completely successful.

All the glories of the reign of Stephan Dushan centred round Uskub, the capital of old Servia, and it is hardly to be wondered at that the Servians were not inclined to give up to the Bulgarians one inch of the ancient Empire which they have remembered and longed to win back for so many centuries. When I was at the Servian head-quarters between the two wars every day brought in fresh reports of skirmishes with the Bulgarian advanced troops beyond the Vardar. Feeling ran very high in the Servian army. I asked one officer what it was all about. "Surely," I said, "your object in combining against the Turks was the liberation of your Christian brothers in Macedonia?" His reply made it pretty clear that his Christian brother occupied a very small position in his thoughts. As a matter of fact, the Servians were by no means regarded as Crusaders at first. It was only when the Macedonians found that this army, unlike the armies which they had experienced within the last few years, committed no atrocities, exacted no dues, and even went so far as to refrain from using local transport for fear of interfering with the industries of the country, that they began to identify themselves with the Servian propaganda.

There was one other object which the Servians put before the liberation of their Christian brethren. This was the attainment of a strategical frontier which they would have some chance of holding against the Turks. Never, in their wildest dreams, had they anticipated the wonderful success which crowned the allied arms. But they had hoped to hold the Turks long enough to be in a position to correct the im-

possible strategical frontier which was given to them by the Treaty of Berlin. Just as this question was a moving factor in the war with Turkey, the question of a strategical frontier was one of the prime causes of the later war with Bulgaria. The Bulgarians wished to push the Servians back to the River Vardar, along the valley of which runs the only railway connecting new and old Servia. This valley is completely commanded from the left bank of the river, and the Servians insisted on keeping a strip of the highlands on the far side. When it became clear that the Allies were going to drive the Turks out of all their possessions except Constantinople, the Servians began to think of getting an outlet to the sea. They never really hoped for a port on the Ægean, but they were very much hurt at being sent back from the Adriatic after all the trouble they had taken to get there. They put all the blame for their disappointment on Austria. This feeling against Austria was very wide-spread, and was also accentuated by the fact that a large proportion of the population of Southern Hungary are Slavs who are indistinguishable from the Slavs of Servia. The Magyars in Hungary are a ruling caste corresponding to the Turks in Turkey. It is only the success of the government of the Dual Monarchy which has prevented an outbreak among the Slavs of Bosnia, and their attitude at the present crisis, encouraged as they cannot fail to be by the successes of the Servians, is a matter for grave anxiety. It is difficult to see how Russia could have sat idly by and seen her small *protégé* extinguished after the gallant way in which she had vindicated the honour of the Slav. Distant though the connection may be, the ties of blood can never quite be forgotten. What should we feel if we saw America in danger of extinction by an alien race?

The operations undertaken by the Servians in the first Balkan War fall naturally into two divisions. The main army, having met and defeated the Turks at Kumanovo followed them up through Uskub, Velles, and Prilep, to Monastir, where the Turkish army of Macedonia was finally broken up. That was the main line of operations. During

this time another campaign of quite a different nature was taking place in the Sanjak of Novi Bazar and in Northern Albania, so that there were two distinct theatres of war, offering the most extraordinary variety of terrain and calling for almost every type of military operation. Albania and the Sanjak are mountainous countries which offer conditions approximating very closely to those met with on the North West Frontier of India. The country from Kumanovo nearly down to Prilep is a succession of rolling downs, of which the chief feature is the entire absence of trees. This complete deforestation is one of the most marked signs of Turkish occupation. When one considers that in Syria a poll-tax, so to speak, was levied on trees up to a very short time ago, land-owners being taxed so much per tree still standing, one cannot wonder that the only woods to be met with in the Turkish dominions are those belonging to monasteries, or to individuals who are for some reason under foreign protection. The country round Prilep is very steep and rugged, so much so that field artillery could not be used. One peculiar feature which I noticed in two or three places is the cropping up of a small isolated ridge at right angles to a wide valley, not connected with, or commanded by, the hills on either side, and offering as perfect a defensive position as a rear-guard could hope to find. A feature of the actions at Prilep and Monastir was the large area of country under water owing to the winter floods. One result of this was that the troops were subjected to very severe exposure, a considerable number of casualties being due to chills and pneumonia.

Enough has been said of Servian history to point out the existence of a very real national feeling. The Servian soldier is a sturdy fellow with an emotional nature and a certain amount of imagination. His relations with his officers are cordial, and correspond very closely to those between the sepoy and the Indian officers in a Native regiment. The Servian officers, coming as they do from the same rank of society as the men (there is only one rank of society in

Servia), and having, for the most part, been private soldiers themselves, have no difficulty in sympathising and even fraternising with their subordinates. I had no opportunity of judging the standard of discipline for myself, but from what I heard I gathered that failure to curb over-eagerness in the ranks was of frequent occurrence.

The Generals and General Staff Officers would compare favourably with those of any army in Europe. They are thoroughly up to date, and have all been trained either in France or Germany. I was not very favourably impressed with the regimental officers with whom I came in contact. They seemed surprised at being expected to know anything which did not affect their own arm. I would not mention this, all units being of course at the front at the time, except that they had been chosen in each case as the best available to answer my questions.

4. To turn now to the actual operations. I can only describe the course of events very broadly, and show how it was that the Turkish army of Macedonia completely failed to exercise any influence on the main operations in Thrace. The Turkish plan was to concentrate the three Army Corps of Uskub, Salonica, and Monastir at Uskub, and to march on Sofia, with the intention of drawing off a large portion of the Bulgarian army from the campaign in Thrace. They seem from the first to have almost ignored the Servian army. The strategy was typically German, but lacked the careful preparation in time of peace which is essential to success. The attacking force, divided into two portions, separated by nearly 300 miles of very difficult country, and connected only by one line of railway, was to act on exterior lines against the enemy's capital. Even if there had been no other enemy, this would have been a most difficult operation. As it was the Servians upset it completely. Their position at the beginning of the war was that they expected the Turks to stand on the defensive on the plateau of Ovje Polye, east of Uskub, which has always been considered by them the strategic key of the Balkan Peninsula. Hampered by an untenable frontier,

which was guarded on the Turkish side by a chain of block-houses and garrisoned by irregulars, and faced with the necessity of clearing the Sanjak before they could advance in safety, the Servians had to distribute their troops along the frontier to start with. One army was sent to Kustendjil to co-operate with the 7th Bulgarian division. These crossed the frontier at Egri Palanka, but never actually came into contact with the Turks. Two armies, connected by an independent brigade and covered by a cavalry division, concentrated between Goliak and Pilatovitza and swept southwards on Uskub, one *via* Kumanovo, and the other along the line of railway. A fourth army cleared the Sanjak, and second independent brigade watched Austria on the Bosnian frontier. The force that we have to consider first is the 1st army under General Milanovitch, which was to march through Kumanovo on Uskub, covered by the cavalry division. Three days before the declaration of war, the Servians had been attacked all along the frontier by Turkish Albanian irregulars, and one result of this had been that the centre and right divisions of General Milanovitch's army had been greatly delayed, and his left, composed of the Danube division, arrived unsupported at Kumanovo, twelve hours ahead of the other two. So close however was the cavalry division to the advanced infantry that, when it came into contact at Kumanovo with the advanced guard of the Turkish army marching on Egri Palanka, it could give practically no warning, and had almost immediately to adopt dismounted action, to save the advanced infantry from annihilation. The Turks were arriving by rail at Kumanovo station, and advancing almost due east towards Egri Palanka. A wide valley runs east and west from Kumanovo village and it was on the northern slope of the valley that the Servian advanced troops were attacked by the Turks. The most elementary cavalry reconnaissance on the part of the Turks would have revealed the isolated position of the Danube division, and Milanovitch's army stood a good chance of being annihilated in detail as it came up. But the Turkish cavalry did nothing, and the Turkish Generals, obsessed with the

idea of marching on Sofia, and unable to realise that the Servians could really be going to give them any trouble, poured on across the Servian front for the whole of that day, delivering a series of piecemeal attacks on the extreme Servian left. The Servian advanced troops were fortunate in finding themselves in an admirable defensive position. Looking across the valley from the south, the ground slopes gently up to a grassy ridge which breaks out at five points into rocky kopjes, and offers a perfect natural glacis without a trace of cover. For twelve hours the Danube division succeeded in holding its ground, helped by the dismounted action of the cavalry division.

I had some difficulty in finding out how the Turks attacked. The official view was that their attack was conducted on the most modern lines, but the evidence of eye-witnesses all goes to show that it was quite piecemeal. One very intelligent officer, who was watching the whole of the day's action, told me that the Turks advanced, in swarms "like flies on a wall", and I think that this was probably the case. It is difficult to reconcile the Servian pride in their defence with their own account that their artillery completely dominated the Turkish artillery from the very commencement of the action. All accounts agree that the Turkish guns were served with great courage and accuracy, but that the timing of the fuses was beneath contempt, and that only a small proportion of the Turkish shell burst at all.

The Danube division succeeded in holding their ground for the whole of the first day. During the night a terrific artillery bombardment was carried out by the Turks, in which thousands of rounds were expended and no damage done. By the morning, the centre and right of the Servian army had come up and the Turks were thrown on the defensive. Their position was, if anything, even better than the Servians', but by 3 o'clock in the afternoon they were in full retreat. At one period of the advance, a large gap having formed between the divisions of the Drina and Morava, the 13th Regiment was hastily pushed in—so hastily that

there was no time to make arrangements for the supply of ammunition. When all the ammunition was exhausted, they were still 800 metres away from the Turkish position, which at this point offers a natural glacis. The Commandant of the 13th Regiment decided to assault! Without firing a shot the regiment advanced and took the position. I think that the explanation of the enormous losses both in the Bulgarian campaign in Thrace and in the war between the Servians and the Bulgarians is probably that this kind of assault was not uncommon.

There was practically no pursuit after the battle of Kumanovo. Various reasons are given for the inaction of the cavalry at this juncture. They were exhausted by their share in the defence. The country was not suitable. The Servians were unwilling to risk their only mounted troops. This last is probably the correct reason, and from the accounts which we heard of the state of the Turkish army in retreat, it seems that a little risk taken at that time would have saved the Servians much future loss. A French writer on the campaign in Thrace makes the same criticism of the Bulgarian army, and suggests that, if the cavalry had been armed with the lance, they might have been more energetic in pursuit.

The numbers engaged on both sides were as follows:—

Turks. Corps of Uskub (three divisions). Corps of Monastir (two divisions). Corps of Salonica (three divisions). Part of the Yanina division: and some Albanian Irregulars.

Servians. 68 battalions, 136 field guns, 100 machine guns. 29 squadrons, 1 mountain battery, 1 howitzer battery, 1 mortar battery, 7 heavy guns (three batteries).

Kumanovo was a typical encounter battle. There was no time for more than the most hasty field entrenchment on either side. The forces met without any warning, and the cavalry on both sides failed to collect any useful information. The importance of the action lies in the fact that it completely broke up the Turkish strategy and freed the Bulgarians from any apprehensions with regard to the Turkish army of Macedonia.

5. The campaigns in the Sanjak and in Northern Albania were too complicated for me to be able to explain them in detail here. But a few words about them may be interesting, as they provide a very good example of a well-organised modern army acting against wild and half-disciplined mountaineers in their native hills. The Arnauts, or Albanians, are like Kashmiris in appearance and like Pathans in their characteristics. They are very fair, and their fairness is the more conspicuous from the peculiar rose-madder tint to which the sun burns them. They wear enormously thick and shapeless white frieze garments and white felt skull-caps. They will do anything to get a rifle, and it was solely for this reason that the majority of them became Mahommedans after the Turkish conquest. It was for this reason again that after the break-up of the Turkish army of Macedonia, they volunteered in large numbers to fight for the Servians against the Bulgarians. I saw a party of a thousand of them entraining in cattle-trucks to go the front, where they were mixed with the Servian regular troops in the proportion of one to ten. They were wild with delight at getting arms in their hands again, having felt very deeply the disgrace of being disarmed.

They have a system of blood-feuds corresponding to that on the North West Frontier. A result of this system is that they build themselves enormously strong stone-houses without any windows, in which the man whose turn it is to be killed immures himself sometimes for as much as eight or nine years. These fortresses, as they might be called, add very greatly to the difficulty of keeping the country in order. The Servians are the only people who have ever succeeded in disarming the Arnauts, and even they had to resort to flogging to do so. The Arnaut has a very wholesome fear of artillery. We were told that one battery had as much effect on them as ten regiments of infantry. Adept at guerilla warfare, they make very good use of the white flag. One of their favourite tricks was to pretend to "come in", and then to amuse to themselves by attacking convoys.

In every case a punitive expedition was sent. They would retire to their fortresses, and guns were almost invariably necessary to reduce them. The leaders, when captured, were court-martialled, some being shot, and others sent as prisoners to Belgrade.

It is easy for us to picture to ourselves the difficulties of operating among people of this kind in winter in a country where there are no roads. But General Jivkovitch—the Iron General, as he was called—who commanded the 4th Army, cleared the Sanjak in an incredibly short time, fighting one severe action just north of Novi Bazar, where he defeated a force of 20,000 Albanians and 20,000 Turks after two days' fighting. In the meanwhile, General Yankovitch, who commanded the 3rd Army, was doing his share. It was amusing to contrast these two Generals. The Iron General, tall, spare, and grizzled, was a very tough looking customer. He would take no denial when the wine went round, but would say sternly—"It is an order"—and one could but obey. General Yankovitch is a little grey-bearded man, of an intensely religious turn of mind. In his mess, the youngest officer present at each meal had to recite a long grace, both before and after meals, while all the officers present stood up and religiously crossed themselves.

The 3rd Army crossed the frontier in three columns, having been attacked four days before the declaration of war by a mixed force of 30,000 or 40,000 Arnauts and 15,000 Turkish regulars. After five or six days' continuous fighting in very difficult country, he arrived at Uskub to find it already in the hands of the victors of Kumanovo. From Uskub he sent a column to pursue a fragment of the Turkish army which had retreated to the south-west after Kumanovo, and with the rest of his force he marched through Prizren to the Adriatic. He was very proud of this force, which was known as the "Flying Column." It marched 140 kilometres through the mountains in snow and rain in eight days, the two columns into which it had been divided actually arriving at Alessio on the same day. From Alessio they advanced south along the coast to the river

Skumbi, where the Powers put a stop to their operations. These two columns would have had a very difficult task if they had met with any serious opposition. But the campaigns in the Sanjak and the Jakova district had broken the back of the Turkish resistance. Even so, it was a very notable feat. The country was extremely difficult. There were no roads, and the tracks were so narrow that in some places even horse transport was out of the question, and porters had to be employed. The Servian mountain batteries, of which ten accompanied one column and four the other, use horse transport. They have no mules at all. Snow and rain had made the tracks very slippery, and there were a number of casualties from men slipping down the khuds. Each column had from 7,000 to 8,000 men and was 25 kilometres long. In spite of the relatively rapid rate of march—an average of eleven miles a day—supplies gave out, and the men were glad to eat the raw ears of maize which they found here and there in the field. This shows, I think, that the Servian General Staff had under-estimated the time necessary for marches in mountainous country.

6. To return to the operations against the main Turkish army. After the battle of Kumanovo, the Turks retreated in the utmost disorder through Uskub to Velles, where they turned south across the mountains in the direction of Monastir. The Servians were more than a week in following up their success; but in spite of the numerous excellent positions for rear-guard or delaying actions, the Turks made no attempt at resistance until they reached a place called Prisatz, where the beautifully graded military road from Uskub to Monastir crosses a high pass in very difficult country. Here a force of 12,000 with ten guns were found in position astride the road. There were only 15 mountain batteries in the Servian army, of which 14 had been taken by the Flying Column in its march through the mountains. What the Servians would have done without the one remaining battery, it is difficult to see. Field artillery could only move along the road, and had to be left behind when the Servians attacked, which they did in

three columns. The centre column, whose mission was to hold the enemy's centre, had to advance unsupported by artillery fire, and was checked when it got within 1,400 metres. The right column, which had been sent to out-flank the Turkish left in such rugged country that the men had to advance in single file, was also held up. It was not until the left column, with the mountain battery, had succeeded in climbing the precipitous ridge overlooking the Turkish right that the Turks abandoned the position.

Of the four Turkish Generals in this theatre of war Zechi, Feti, Karasaid and Djavid—the last named stands out conspicuously as the only leader worthy of the name. Realising the danger of being caught between the Servians and the Greeks at Monastir, he had marched rapidly south after Kamanovo to check the advance of the Greek army. He found an isolated Greek division at Florina, and annihilated it, capturing a number of guns. We were told that a despatch was found afterwards at Monastir in which Djavid proposed to abandon Macedonia to the unexpectedly efficient Servians, and to concentrate temporarily against the less formidable Greeks. Whether or not this bold plan would have been crowned with success it is impossible to say, but the moral effect of his victory at Florina would have gone far to counteract the discouragement due to Kumanovo, and we may even speculate on the effect which a victorious Turkish campaign in Greece would have had on the Bulgarians in Thrace. However that may be, the plan was over-ruled, and he marched back to co-operate with the other three Generals in the defence of Monastir.

In the meanwhile there was another and a more serious engagement just south of Prilep. Here the road runs down a wide and flat valley, which is crossed at right angles by one of the peculiar subsidiary ridges which I have already described. Looking north from this ridge, the front is guarded by a stream which at the time of the action was flooded to a width of about 800 metres. The ridge is commanded by the hills on the east of the valley, but at too great a range for effective rifle fire. This commanding ground is

Servia and Turkey.

impassable for field artillery, and owing to the lack of mountain batteries was not made full use of. Stretching away from the position for miles on the front and left lies a perfectly flat expanse of meadow land without a vestige of cover. Although the Servians wasted another week after the action of Prisatz, no attempt was made by the Turks to prepare this position for defence. The Servians made a holding attack with 20,000 men and sent another force of 20,000 to make a very wide turning movement on the Turkish left—on the side, that is which is flat and open. It was here that the frontal attack lost 1,200 men in a very short space of time owing to the lack of discipline in the Servian army. Nothing could stop the infantry from advancing. Fired with the idea that their great hero, Marko Kraljevitch, was leading them in person on his famous charger, they paid no attention to the efforts of their officers to hold them back. When told to retire they would call to each other—"Retire to the front", "Advance, brothers, or we are lost." This shows a fine spirit, but it points also to lack of control and imperfect discipline. It is interesting to note, too, that some of them were actuated by the idea that by advancing they would get into comparative security *under* the trajectory of the Turkish shell, never doubting that the Turkish gunners would continue to fire at the positions which they had left. The saving in life that would have resulted from their confining themselves to holding the enemy is shown by the fact that as soon as the division which was carrying out the turning movement appeared on the Turkish left, the Turks retreated to Monastir.

Exhausted by losses and exposure, the Servian army halted for no less than six days at Prilep, thus giving the Turks time to entrench the Monastir position and to reorganise their shattered forces. Djavid Pasha, who had been preparing the position, took command when the other Generals straggled in. The Turks were in the utmost disorder. Units had become confused to an extent which made complete reorganisation necessary. The Turkish position was as follows. As can be seen from sketch B, Monastir

lies at the foot of a long spur which runs up in a north-westerly direction to the now famous hill of Oblakovo. Here the Turkish line curved back and took a southerly direction as far as the Monastir-Ochrida road, which it touched at point 912. The *massif* which is enclosed by this line rises gradually from Monastir until it reaches its highest point, with the exception of an isolated point 1,248, in the three-crested hill of Oblakovo. The gradients from the watershed to the north, west, and south are so steep as to make effective occupation of any but the lowest skirts of the hills quite useless. These, however, form a natural defensive position which could hardly be beaten. The valleys of the Tsemnitza and Prina are wide and open, giving a field of fire of never less than 2,000 yards. Add to this that both rivers were flooded, the Pirna to a width of over half a mile, and it will be seen that nature had provided the Turks with something very nearly approaching the ideal defensive position which our Field Service Regulations warn us never to expect.

It will be seen that the Turkish line comprised two arms which met at an angle at Oblakovo hill, from which both arms could be enfiladed. This point was the key to the whole position, and was reserved for himself by "that devil Djavid" as the Servians used to call him.

The Servian attack began all along the line at 6 a. m. on the 16th November and lasted till dawn on the 18th, when Oblakovo was at last taken and the whole position became untenable. Djavid Pasha was the hero of the day. He had thrown himself whole-heartedly into the work of reorganising the shattered remnants of the Turkish forces, which had never really recovered from the effects of the unexpected defeat at Kumanovo. Realising by that time that the *redifs*, or reservists, were worse than useless, he disbanded a large number of them before the battle of Monastir and sent them away to find their way home as best they could. For himself he reserved the most difficult task—the defence of the salient of Oblakovo—and when it became clear that the Servians would not be denied, he held on with a little band of

only 2,000 men, determined to cover the retreat of the main Turkish forces. Nothing that I saw in Macedonia impressed me so much as the top of this hill. The centre knoll was seamed with pitiful little trenches, rising in seven tiers like stalls in a theatre. Even after the two outer knolls had fallen into Servian hands this gallant little band held on to the centre knoll, not more than 200 yards square, though the enemy were firing at them from both sides at a range of only 150 yards. Not only did they hold on; eleven times on the night of the 17th did the indomitable Djavid counter-attack with the bayonet, and when he was at last overwhelmed by superior numbers, he managed in some incredible fashion to slip away before the dawn. The Servians too, could point with pride to the endurance shown by their men on the other flank. Some of them stood, we were told, for as much as eighteen hours, up to their waists in the icy waters of the flooded Pirna, before joining in the final assault which drove the Turk from Macedonia for ever. History will do the Servians justice for their share in this war, but those who study it closely will have most admiration for the heroic resistance of the badly organised, half-starved remnant of the Turkish army, which showed that, in spite of all handicaps, it could be relied upon to fight to the last.

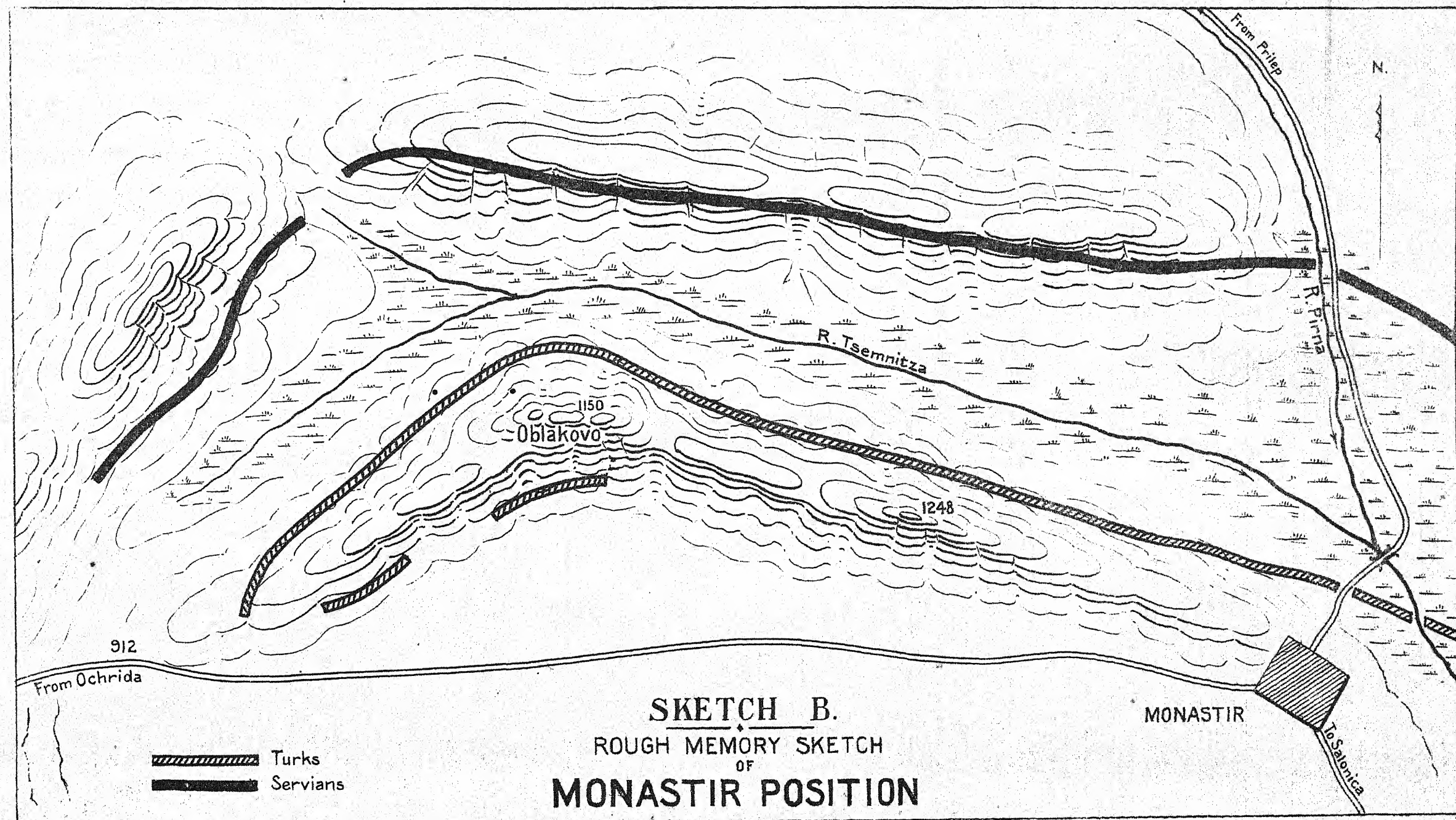
7. To recapitulate briefly the points of interest which strike us in this great rising of the subject races against the Turk. We have seen a ruling caste with no genius for administration gradually losing its grip of empire owing to the decline of its military strength. We see the same people still nominally governing from Constantinople to the Persian Gulf. What possibility is there of the subject races in Asia following the example of the Balkan States? To what extent will community of religion with their rulers check the development of national unity among those subject races?

We see the young Turks' abortive effort to restore the military efficiency by which alone they could hope to retain what was left of their vast possessions. What hope have

they of doing better in the future? We see them failing because they started with the regimental officer and were content to leave the staff and departments as inefficient as ever. We see the Allies successful, because they went the right way about creating an army, and, like the Japanese, realised that organisation and staff work are the first essentials to military efficiency. We see subject races, as soon as they are freed from the deadening load of an incapable government, not only blossoming out in unprecedented vigour, but taking immediate steps to raise a military force which shall be capable of maintaining their independence. We see the strategy of exterior lines fail, as it is bound to fail, when no steps are taken to ensure co-operation and inter-communication between widely separated armies. We see the necessity of studying our neighbours and the fatal error of underestimating their strength. Turning to more technical points, the importance of cavalry reconnaissance and of energetic pursuit, the possibilities of the mountain battery, the vital importance of the officer, the necessity of that real discipline which will check the premature advance of the excitable infantryman, the value of musketry and of fire control, all these are illustrated by examples which are well worth study.

But the most salient point which stands out as the real reason for the success of the Servians is that they were fighting as a nation, and had been trained as a nation. Every Servian, down to the humblest private in the 3rd *Ban* of the Reserve was actuated by national motives, and had been at some time or another trained to play his part in the national effort.





The Relationship Between Supply and Transport and Mobility.

MAJOR T. R. C. PRICE, *11th K. E. O. Lancers.*

It is a fundamental principle of war to be strongest at the decisive time and place, but an army which is physically weakened by want of food can rarely fulfil this condition; the feeding of men and animals so that they can act with their fullest powers becomes a most important problem and the advantages which an efficient supply and transport service confers on an army cannot be overrated. Closely connected with mobility is the state of discipline obtaining in a force and an adequate food supply is certainly a leading factor in ensuring good discipline.

In matters of strategy and tactics we are taught to look to history for guidance in these branches of the military art; but it is obvious, that, without mobility and discipline in the army, the best laid strategical and tactical plans must come to nothing; it is certainly important to study the relationship between supply and transport and these two essential attributes and the instances in military history are many where the mobility and discipline of armies have been affected directly, both favourably and unfavourably by the condition of those services.

In the American Civil War, after the second battle of Bull Run, the Confederates decided on invading the North; but Lee himself, when advocating this movement, felt compelled to inform the President that his army was not really fit to cross the frontier as the transport was in such a bad state. The subsequent severe marches into Maryland, carried out by ill-fed men, resulted in wholesale straggling, so much so that the Stonewall Brigade of four regiments was at one time reduced to a strength of some three-hundred men.

In the various works on the Seven Weeks War whenever the question of supply and transport is touched upon, the excellence of the Prussian arrangements is always contrasted with the slipshod methods of the Austrians. Thus the Army of Frederick Charles made its first marches as if in a desert country, so far as supplies were concerned; for the Prussians thought that the Austrians, in order to retard progress, would lay waste the country on the line of advance. Large magazines therefore were formed at Górlitz and in Saxony from which supplies were forwarded by rail and by country carts to points where they could be reached by the supply wagons with the Army.

The Prussians soon realised that the best method of "living on the country" was by the use of local vehicles to collect the supplies, in the first instance, into magazines where the wagons of the Army could be filled. This saved the time which would have been spent by the latter in scattering over the country, and in collecting dribblets of food in many villages; further it minimized the distance which military wagons had to travel. The Prussians also realised that "requisitioning" could only be regarded as an auxiliary means of supply and that it was impossible to feed large forces by this means alone. The danger of a too free application of the method lay in the probability of the inhabitants being starved, for sickness follows in the train of want and if pestilence breaks out amongst the population, it is certain to appear in due course in the ranks of the army.

Once the First Army left the railway much difficulty was experienced in getting up supplies from Münchengrätz to the Bistritz, as the hired trains were unable to keep up; this resulted in a good deal of indiscriminate requisitioning and a lack of regular supplies at this period.

On the Austrian side it was Benedek's intention to move forward from the neighbourhood of Brunn and Zwittau towards Josephstadt and there to effect a junction with the Iser detachment. But at the time this decision was come to, besides the fact that a certain number of units had not arrived, the Austrian supply and transport services

were in such an incomplete state as to render the army practically immobile at this critical juncture.

The events of the Franco-German war prove that where the actual *fighting* powers of armies are more or less equal, it is necessary to look elsewhere for causes whereby the issues of a campaign are settled. With the French the dictums of Napoleon were forgotten:—"The transport service is most essential to the success of an army and often even to its preservation", and, again "the transport service is the soul of an army to which it, of itself, communicates life and movement". When war was declared it was found that there were large deficiencies amongst officers, men and horses of the French supply and transport services; when Divisions marched the men were provided nominally with four days rations in reality they had often insufficient for one. As in 1862-3 the natural result was "straggling" in search of food, together with the robbing and pillaging of villages, houses and provision trains. When regiments were ordered to take the field they were unable to obtain the requisite transport, for all vehicles were in park at two large centres; carts and horses were hurriedly requisitioned but the former broke down and the latter gave in resulting in delays and interruptions on the march. The French soldiers soon saw that, though they were being hurried to the front, the real requirements for offensive action were absent and very soon their physique also began to suffer in consequence of privation and exposure.

During the concentration, in many cases, of troops had to eat the reserve biscuits; in others, for want of supplies they could not march at all, while the Garde Mobile at Chalons broke into open mutiny, many being quite destitute of food. Widespread defects in the supply and transport arrangements had an important bearing on the French plan of campaign and went far to frustrate the Emperor's original ideas for an offensive movement into Germany.

A typical example of the delay resulting from a faulty transport system was the slowness of Bazaine's

retirement through Metz, caused by the enormous mass of transport, which was under no proper control or management; indeed, this ill-fated force received the soubriquet "Army of Darius" in derisive remembrance of the unwieldy host which attempted to bar Alexander's victorious advance into Persia, over two thousand years before.

A French military writer of renown once asked the question "Voulez-vous bâtir une armée"? and replied in the same sentence "Commencez par le ventre; c'est la le fondement." But in 1870 it was the Prussians who acted up to this sound advice. In 1868 Stöffel had reported from Berlin to his Government in France that "no one branch of the Military service is deemed of greater importance, none of less importance, than another." The Prussians seem to have paid just as much attention to the administrative services whose functions are to provide for the physical support of the forces, as they did to matters of mobilization, drill and training.

In spite, however, of the arrangements which were made for the supply of the Army Corps during the preliminary concentration and in the advance from the Rhine, there were occasions, early in the campaign, when the requirements of the troops were inadequately met, notably after the battle of Spicheren, when for two days the supply trains were far in rear. When in France the Prussians made very complete arrangements for requisitioning, but in spite of the desire to make the war support-itself, they were unable to obtain more than one third of their supplies by this means. The cavalry divisions had to form their own special supply columns to carry oats; they required this extra transport to enable them to carry out independent operations and to avoid requisitioning duties which meant loss of time and energy required for other purposes.

Coming to more recent times—the war in South Africa—some writers have pointed out some of the results of Lord Robert's eleventh-hour change in the system of transport and the consequent confusion in that branch of the service. One of the causes of the delay in Colville's move to the

relief of Broadwood at Sanna's Post appears to have been that the former took nearly a day to collect transport which had been taken away from his units under the new scheme. But perhaps the best example of the influence of supply and transport on mobility was the loss of the convoy on the Riet river on February 15th 1900, just before the advance to Paardeberg. The loss of these supplies, wagons, and oxen paralyzed the army for a time and forced Lord Roberts to halt for a week after Paardeberg; it had much to do, also, with the prolonged stay at Bloemfontein, where there were many casualties from disease to which the troops became the more liable through weakness due to short rations at Paardeberg as did the French in 1870. The slowness of Warren's move west along the Tugela in January 1900 is an instance of close movement similar to that of Bazaine's retirement through Metz in 1870. Warren's column took five days to march twenty seven miles, encumbered as it was with a mass of five hundred ox wagons.

The instance which can be found in previous campaigns of the relations between dependence of mobility on supply and transport paralleled are by the experiences of the Russo-Japanese War. This is especially the case with the Japanese, witness the delays and difficulties of the 1st Army in their advance to the Yalu and again from Fenghuangcheng to Liaoyang. By April 30th 1904, the day before the Yalu, seven days supplies had, with infinite toil, been collected for the 1st Army. It was, therefore, necessary to defeat the enemy and shift the base to Antung within seven days. As it turned out, by defeating the Russians on May 1st, the supply ships were able to reach Antung on the 2nd and the Army was able to draw rations from the new base on the 5th. If however the action had taken three days instead of one, great hardships must have been suffered by all ranks and worse might have befallen them.

In July 1904, the 12th Division (1st Army) was ordered to retire a considerable distance from Sha-chia-pu to Saimachi, and there had to remain inactive for ten days,

when it was once more able to advance and fight the important action of Chiaotao; this retirement was by no means made for strategical reasons, but solely on account of supply and transport difficulties. It must be remembered that there was no railway in rear of the 1st Army and that it was operating in very intricate country; the difficulties of our "columns" in South Africa, when they left the railways, were repeated. In the western theatre of war the Japanese were for some time similarly handicapped, which resulted in long halts after Telissu and again after Tashichao.

The Russians had the advantage of a railway in rear and of depots to retire on, but once these were left behind they paid the penalty of inadequate supply and transport arrangements, more especially in the difficult country to the east; had there been a good system of corps and divisional transport it is possible that Kuropatkin might have attacked Kuroki with some chance of success, when the latter was in his isolated positions towards the end of July, and, again early in August 1904.

Coming down to the present day and keeping in view the main responsibilities of our forces, both at Home and elsewhere, there are of course distinct differences in the terrains in which our troops may be employed.

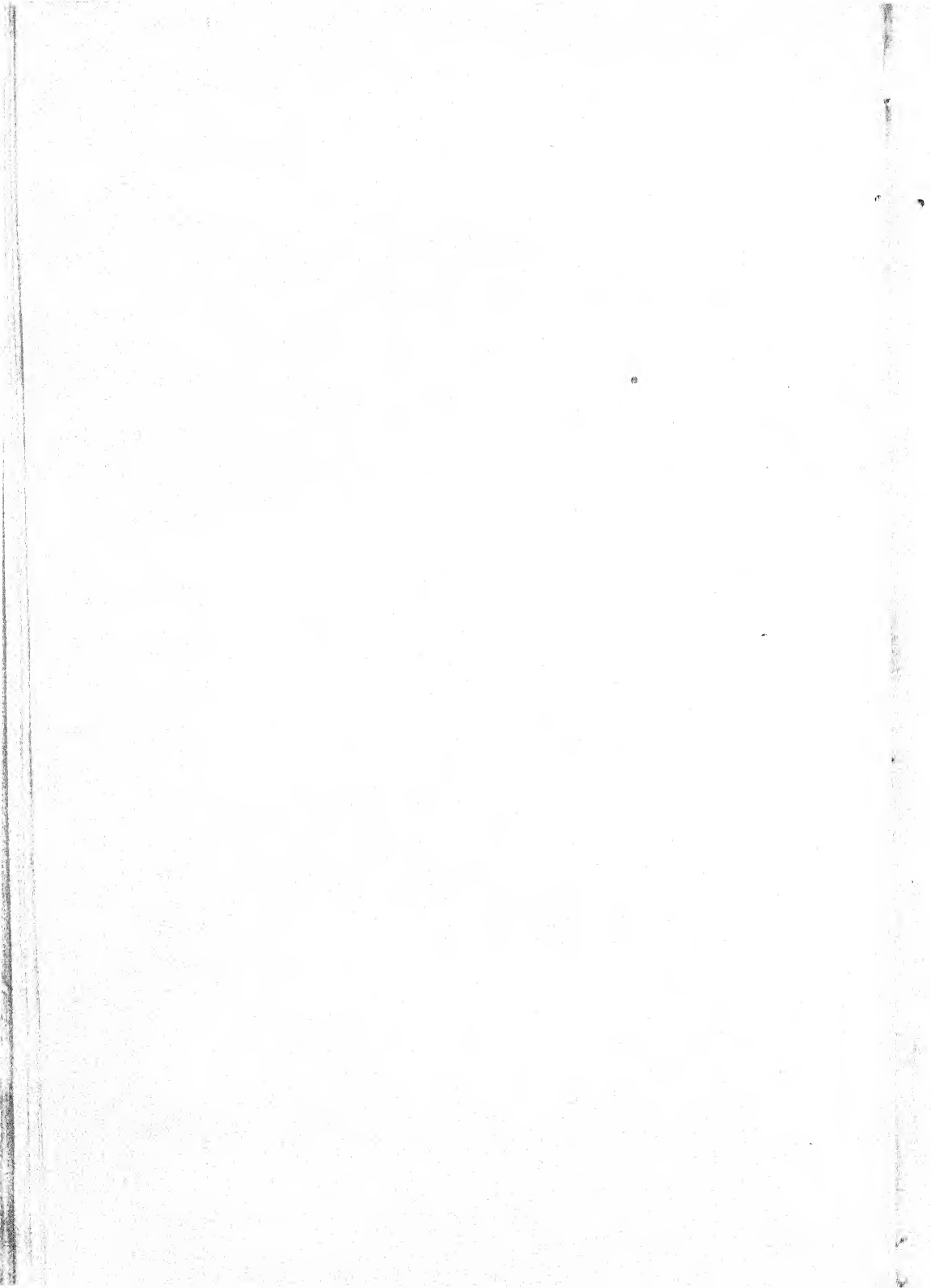
In the theatre of war in which our Home forces are now engaged there is a network of roads and railways and consequently there is little need to place such dependence on the "Lines of Communication" as is necessary in countries less highly developed. Then, again, there is the possibility of billeting and of "living on the country," going far to increase the mobility of the army which need not have its radius of action strictly limited by the efficiency of its Lines of Communication services. Indeed, with modern mechanical transport, horse drawn vehicles, field kitchens, and railways close in rear, the supply and transport problem for our Home forces should be a very different affair from that which faces the Staff and the Administrative services in other parts of the Empire.

If we turn to India, for example, and examine the terrain beyond its borders, through which the army may be called upon to operate we find an entirely different state of affairs. It may safely be affirmed that the physical aspects of adjoining countries and of their approaches from India, will always offer far greater physical difficulties to be overcome than will the opposition of the enemy's forces. Roads are few and in most cases are such that only pack transport can accompany the troops. The forces will gradually work their way forward from the bases to their objectives leaving behind the ever lengthening lines of communication, along which must be placed and maintained perhaps, thousands of animals. Even here modern inventions may be called upon, for there are portions of road where light railways might be laid and mechanical transport used; but in other places all the supply work must be carried out by the heterogeneous collection of units of the Indian transport;—the 160 lb mule or pack bullock, the 400 lb camel and the 800 lb bullock or mule cart.

Were the transport required in war maintained in peace time all would be well; this however is unthinkable, for the expenditure that would be entailed by such a course would diminish the money available for the fighting service, and for the great mass the transport, personnel and animals no work could be found.

Except for minor operations the Indian transport problem is a tremendous one; all that can be done is, in peace time, to ensure that a sufficiency of trained personnel shall be forthcoming when required and on mobilization, to see that the additional transport animals then taken up are carefully chosen, suitable ones only being accepted.

A study of this aspect of military history leads to the conclusion that an "efficient supply and transport service" and "mobility" are synonymous terms and that, to borrow the words of Frederick the Great—"The art of conquering is lost without the art of subsistence."



A Coincidence.

BY

LIEUT-COLONEL J. A. WILSON, D. S. O., *8th Gurkha Rifles.*

In G. G. O. No. 574 of 1875 appears a despatch from Colonel Nuttall, c. b. of the 44th Sylhet Light Infantry (now 1st Battn. 8th Gurkha Rifles) regarding certain operations in the Naga hills, which will be briefly described after a short description of the cause of them.

In the cold weather of 1874-75 a survey party was working in the hills east of Dibrugarh, and with it was an escort of 50 rifles composed of the 44th and Assam Frontier Police.

With the party was Lieut. Holcombe, the Assistant Commissioner of Jaipur, a sub-division of the Dibrugarh district, who was the Political Officer, and therefore in control of the movements of the survey.

On February 1st 1875, the party halted at Ninu, a village about four marches from the plains, and next morning about two hundred armed Nagas came to the camp, and asked to see the Assistant Commissioner. The 44th Jemadar, who was commanding the escort, naturally refused to let them in but Lieut. Holcome ordered them to be admitted, saying they had come at his invitation. As soon as they were let in, they promptly spread themselves all over the camp, offering fowls and vegetables to the escort who were either packing their kit, or eating their food previous to marching.

The spokesmen of the Nagas came up to Lieut. Holcombe's tent, and said his chief would not approach because he was afraid of "the man with the gun" in front of it, referring to the Gurkha sentry, whereupon the Asst. Commissioner took away the rifle, in spite of the

of it, and began sending in the property looted on February 2nd, by means of other tribes.

On April 3rd, the column commenced its return march to Dibrugarh, where it arrived in due time, without further adventure.

The results of this expedition were, as may be read in the six pages of G. G. O. concerning it, that the whole of the villages concerned in the outrage were thoroughly punished, the captured arms were given up, and a great many Naga guns, spears, cross-bows and daos were taken. The Nagas' loss was estimated at fifty killed. All the powerful villages in the neighbourhood tendered their submission, also many far removed from the scene of operations.

Several officers were mentioned in despatches for their good work, while the Commander-in-Chief, and Governor General in Council expressed their appreciation of the "excellent service rendered by Colonel Nuttall and his force, during an expedition which presented physical difficulties of no ordinary nature," and desired their thanks to be conveyed to all the officers mentioned.

The next scene opens on February 5th 1913, the terrain being some thirty miles S. W. of Ninu.

A force of 197 military police and 500 coolies were acting as escort to the Political Officer of the Naga hills, who was marching from Chingphoi to visit the village of Chinglong, whose men had murdered some British subjects the previous July, and violated the frontier several times afterwards.

The chief of Chinglong, when called on to answer for this misconduct, sent a defiant reply, and as the attitude of the transfrontier villages was decidedly threatening, it was considered advisable to send a strong escort with the P. O., when he went to enquire into matters. This could not be undertaken earlier, as practically all the Military Police of Assam were either with the Abor survey or on the Mishmi road: as it was, 150 of those sent were borrowed from Eastern Bengal.

When this party reached a point about $1\frac{1}{2}$ miles from Chinglong, they found the road blocked by stockades, and punjied; and while the advance guard was held up by the first stockade, the Nagas charged the transport in heavy grass jungle, killed 13 men and wound 32 others, besides carrying off three rifles and other property. The force pushed on and took the village that evening, and halted there on the 6th doing what damage they could, the enemy annoying them the whole time. As water was extremely scarce, and the coolies so much demoralized that they were practically useless, it was decided to return to British territory on the 7th, when reinforcements were asked for by telegraph. After a full enquiry into the matter, practically on the spot, by the L. G. C. Northern Army, he ordered up 216 rifles of the 1st Bn. 8th Gurkhas from Shillong. They arrived at Nazira on March 2nd, and at once pushed on in three marches to Wakching *via* Tamlu. Here the force, 351 rifles of the 8th G. R. and Military Police, under Major Alban Wilson, D. S. O., 8th G. R. had to halt for two days to allow the rations to come up. These were delayed by the heavy rain, which caused the Dikhu river to rise and carry away the only bridge between Tamlu, and Wakching. While the column was waiting, an advance party was pushed on to the Shiniong river to make a camp with the assistance of friendly Nagas. When this party reached the river on March 7th, three rifles and two spears looted on February 5th were sent in. On the 8th the village of Totok which had cast in its lot with Chinglong was reconnoitred, and again on the 9th, when the force moved down from Wakching to the Shiniong camp. On this occasion the enemy beat their great war-drums, and seemed full of fight though they did not attack the reconnaissance.

The country was very difficult, in places almost precipitous, and as to its general character, and the situation of the villages, closely resembled that previously described.

On the 10th, the force consisting of 320 rifles, and 211 coolies carrying three days' extra rations (3 days' being

carried on the men) advanced in pouring rain against the chief Totok village, Totok Tingha which was strongly stockaded and built on the edge of a steep cliff, surrounded by dense jungle. When the column reached within about a mile of it, a dense fog came on, which gave an opportunity for a flank movement to be made through the jungle. This was unobserved by the enemy, till it got within 800 yards of their stockade, when voices were heard calling to the party to "advance in peace." The Nagas were ordered to send down their head men to speak to the Commanding Officer, but as they did not do so, the advance guard pushed on to within a hundred yards of the stockade. The village towering above it was full of armed men, yet not a shot was fired, and as the chief still refused to come out, bayonets were fixed, and an advance ordered. On this, the Nagas rapidly retired into a sort of stone fort in the middle of the village, from which they refused to budge, till two shots were fired at them. To these they replied, and then the village was cleared.

The enemy retired to another Totok village $1\frac{3}{4}$ miles distant, they were pursued there by 150 rifles, and driven out after offering slight opposition. By five o'clock both villages were in flames. Next day small parties of fifteen or twenty men were sent out on all sides while 70 rifles were despatched to Totok Chingko, about five miles along the ridge to the S. E. As this was possibly a surprise, the enemy stood their ground for a time and fifty of them were slain.

On March 12th, the column returned to the Shiniong Camp.

On the 13th, a hundred rifles with all the spare coolies were sent ahead to make a camp on the Auyang river below Chingphoi, while to cover this movement, Totok was again harried and a special flanking party operated in the enemy's country, parallel to the line of march, encountering enemy several times. Next morning the remainder of the column moved to this camp, covered in a similar manner.

All stores and rations had been transferred under escort to Chingphoi from Wakching, while the Totok group was being adjusted. The Auyang river was found in heavy flood, so while a bridge was being made across it, three reconnaissances went out with orders to find a camp suitable for operations against Longmieng, Ngang, and Chongvi as well as to operate against Chinglong. All these parties encountered the enemy, and a suitable camp was found about six miles away, on the Shiniok river.

On the 16th, 150 rifles and 200 lightly laden coolies moved to the Shiniok river to prepare a camp, their march being protected by "shikar parties" from the Auyang, who destroyed what remained of Chinglong and its defences and scarched the jungles for ambushades.

Next morning the elders of Longmieng came in and established their innocence to the satisfaction of the political officer. On the 17th the bridge was ready, so the rest of the force marched to the Shiniok, strength 260 rifles, and Chongvi was reconnoitred the same evening, the enemy being seen in great force, manning the stockades below the village.

On the 18th leaving every possible coolie under a guard of 60 rifles in camp, the column marched through very heavy grass jungle part of the way, about 4 miles to Chongvi. The village was attacked in front and flank, and taken by noon, the flankers having quite a smart little action, taking four stockades, in which the enemy lost thirtyfive in killed alone. The rest of the day was spent in clearing the village, and hunting the enemy out of the neighbourhood. Simultaneously with the advance on Chongvi, the Political Officer, escorted by 60 rifles, visited Longmieng, where he was well received.

On the 19th, his escort co-operated with a similar detachment from Chongvi, in an attack on the two villages of Ngang, which were about three miles distant mid way between Longmieng and Chongvi.

The enemy were driven out with loss and the village taken. On the 20th, the whole force returned to the Shiniok

camp and next day to the Auyang, the enemy being successfully ambuscaded both days, on the 21st especially, when the Chinglong people were surprised carrying off their property from those hiding places, which had escaped the "shikar-parties," and taking it to the friendly Longmieng, who had just denied any dealings with any of the hostile combination.

This concluded the active operations, during which there were only 36 hours fine weather, so they could not be described as a comfortable picnic for officers or men on very light kit.

Progress was very slow, owing to mist, rain, slippery paths, and swollen streams, but as the road was always reconnoitred beforehand for ambuscades, panjies and pitfalls, up to the next camp, pace was considerably accelerated, though the force seldom covered more than a mile an hour.

One hundred and thirty of the enemy were seen to have been killed in action, and about fifty of their guns, besides a very great number of spears, daos, shields, and cross bows were taken.

All the villages concerned, as well as others 30 or 40 miles away from Tamlu, tendered their submission within a very short time of the column's return to British territory.

Subsequently the Assam administration, the Commander-in-Chief, and the Government of India expressed their satisfaction at the way the wishes of Government have been thoroughly carried into effect, and to the officers and troops for the energy and celerity, with which the operations had been conducted.

The lessons of these two little expeditions are those inculcated in F. S. R. Part I. chap. X.

A vigorous offensive was pursued from the first (See 141-4.) and when dispersed the enemy hunted to such an extent that he had no time to organize ambuscades, counter-attacks, or anything else. Care was taken not to induce the enemy to abandon his position, or manœuvre him out of it by too great a display of force. (Sec. 141-6).

As soon as camp was reached, patrols scoured the country all round till dark (154-4)

On the march, protection was ensured by independent parties being given a free hand to cover the movement. These were lightly equipped as a rule, and searched the jungles so thoroughly that no ambuscade was ever encountered by the main body. (Sec. 152).

The baggage was reduced to a minimum, and the coolies protected, as has been the custom in *military* expeditions in Assam for many years, by two men in front, and two in rear of each group of ten coolies, which thus form a little party to close up on themselves if attacked. Behind each sixth group marched six rifles.

This escort was quite sufficient to protect the baggage on the march or when parked previous to an attack, without any alteration in the striking portion of the column (See 150-4 and 6).

No long range firing was ever allowed in the Totok column, so as not to teach the enemy the power of our weapons, nor were strong perimeters made to the camps, as when left, they remain as object lessons to the enemy. A brush wood entanglement, well panjied in front, in the jungle, or a barricade of planks, rice pounders, troughs, or anything else available, in the villages, was all that was deemed necessary.

Long range firing against savages in jungly country is worse than useless, as was proved in the Abor expedition of 1911, for it only frightens away the enemy, and then one can never catch him. The only punishment he will remember for anytime is to kill his men, unless perhaps it is to ring the trees, in and about his villages. This may sound unnecessarily brutal, but as it only takes 20 years to grow a man, and 60 to grow a jack-tree, the dearth of jack-trees in any place will probably serve to keep the memory of punishment alive longer than killing the men, and far longer than destroying a village, which can be rebuilt in three months, and be much improved from a sanitary point of view, through having been burnt.

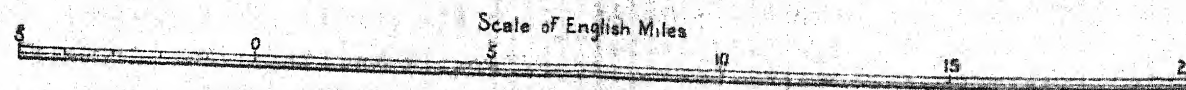
One thing to bear in mind, with regard to any campaign, is there is nothing new in the *principles* of the art of war, it is only the conditions that are different, and therefore probable conditions require study, while one can always learn from the experience of others, no matter whether they are younger or older than oneself. Seniority without experience does not always mean knowledge, though many seem to think it does. Therefore, if one has not had experience oneself, one must learn from books and from those who have it.

On a recent expedition, the writer saw a raft made of waterproof canvas bags stuffed with grass, which many people thought most novel and ingenious, these bags were subsequently replaced by others which were blown up by an air pump. Alexander crossed the Jhelum on such bags, the inflating material was the same, namely air, he also used grass to maintain the distention, only instead of water proof or airtight canvas, he used bullock hides.

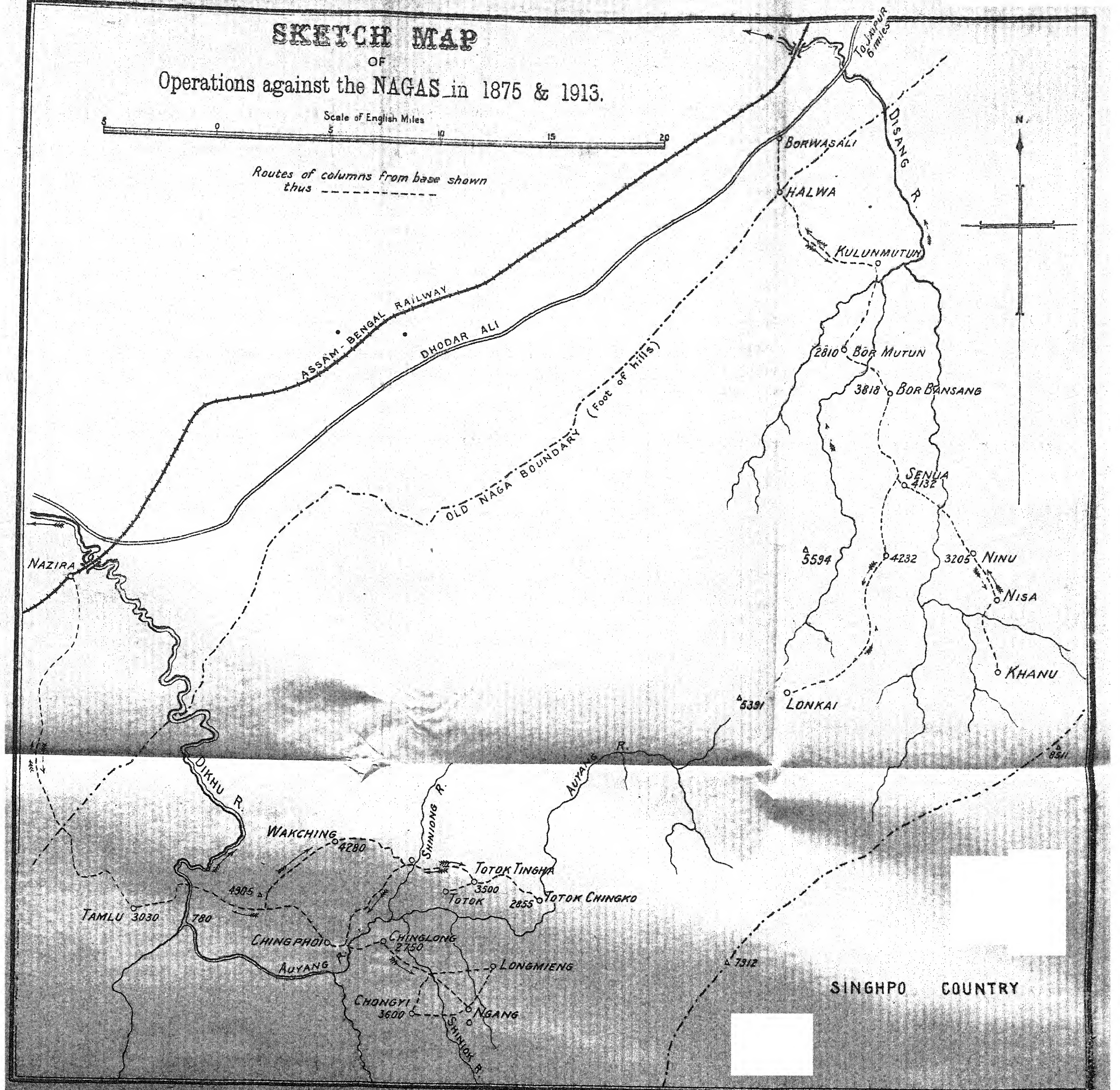
Here the principle was old, but the conditions were slightly different.

SKETCH MAP

OF
Operations against the NAGAS in 1875 & 1913.



Routes of columns from base shown
thus -----



Artificial Aids to Training.

BY MAJOR-GENERAL E. S. MAY, C. B., C. M. G.

Officers in command of troops quartered in places where few open spaces and facilities for training exist, are often hampered in finding opportunities for tactical instruction out of doors. Many of those who are responsible for the training of our Territorial Army are placed in this difficulty. There are numerous colonial stations but little better placed, as regards facilities for training, than such places as London or our larger cities at home. But the difficulty is felt almost everywhere, because weather often interferes with employment of troops out of doors.

It is very often difficult to get men who are not professional soldiers out into the field, and even when in the field there is often not sufficient time to go over the ground carefully, and thoroughly to discuss and explain the problems and difficulties involved. In India, where operations of any kind in the hot weather are impossible, and where, in certain circumstances, it is extremely difficult, if not impossible, to find ground suitable for training, the need for an artificial terrain is equally felt. Personally, I have found myself placed in difficult circumstances because the large extent of the Presidency Brigade area (covering, as it does 149,000 square miles), prevents the assemblage of officers at places where ground lends itself to Tactical training. In that area also, there are a very large number of Volunteer units who experience precisely the same difficulty in giving time to the acquisition of Tactical knowledge on the ground, as that experienced by their comrades at home. In these circumstances, I have found the greatest possible benefit to be derived from the use of a tactical model as a substitute for ground, and as a means of training troops.

The tactical model which I find the greatest use, is one constructed under the following conditions. A wooden box from 12 to 6 feet square, or of oblong shape, is constructed about 18" deep, and placed on strong legs so as to bring the top about 3' 6" above the ground. This box is filled with damp sand and the sand can be moulded with a trowel or with one's hands, to represent a piece of country, or to display any natural features which it is desired to utilise. The object being to use the tactical model in bad weather, at night, or during the hot weather in India. It is better if possible, to place it under cover, often no room but a gymnasium or drill hall will be available. If this be the case, it is a good plan either to make the box exceptionally strong and large, or, comparatively light and of not greater dimensions than 6 feet square, because if it be made strong and as large as 12 feet square, or 12' by 9', it can be covered with boards when not required, and placed at the end of the drill hall or gymnasium to form a platform for concerts or other entertainments. If, however, such a large model would be in the way or not be required for the purpose I have mentioned, a smaller one 6' square, can be carried empty into the gymnasium when required, emptied, and carried out again. Tables with benches should in any case be placed round it so that the spectators, who may be watching a tactical exercise, can see comfortably when seated. Different expedients must be used to suit the circumstances of each case, but we may assume our model in position and filled with sand. It can then be used for the following purposes:—

In the first place, as a means of imparting instruction in map-reading. * A map at 1" to a mile or any other convenient scale is copied on the model, a regards its elevation as well as its plan. The scale of a model may be according to choice. A baton of wood marked in feet and inches, or a wooden trellis-work, or a net of squares of any scale from a foot to 6 inches (6 inches being the smallest

* marked in heights or contours.

useful size), may be utilised to bring the model to the required scale. The map is then copied, the hills and valleys, the flat ground and undulations of the map, being reproduced at the required scale on the model. Roads may be represented by means of tape, the rivers by means of blue ribbon or paper, woods by moss or sprigs from some evergreen tree or shrub, a little ingenuity will easily represent houses and walls by means of empty match boxes or strips of wood. Every kind of topographical detail such as railway-tunnels, bridges, canals, telegraph posts, railway-lines, can quite easily be represented.

This representation of the map on the model will form an excellent exercise in map-reading, both for officers and non-commissioned officers. To those who want to study military topography, further facilities in illustrating contours and explaining how they should be sketched, is provided.

The close reproduction on the model of a portion of a map will thus afford a good opportunity for instruction in Military Topography. The piece of country reproduced can then be utilised for tactical instruction. A scheme with a general and special idea is drawn up as for an exercise in the field. The commander, and his subordinate commanders, the staffs and regimental officers, as low down as company commanders when the nature of the operations demand their presence, are assembled. A tactical situation is imagined; the commander explains his view as to how it should be dealt with; orders are written, and he explains his plan to the officers composing his force. Small oblongs of wood or lead, painted, of the same kind as are used in war games only larger, are then placed in the position they would occupy on the real piece of ground, and they are moved the distances measured by scale that they would traverse in the actual field. The operation, of whatever nature it is, is conducted in precisely the same manner as it would be in the field; and the same difficulties and problems connected with the ground and its features, as they arise, are discussed and solved in so far as a solution is possible.

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This method of instruction on a tactical model lends itself especially to the training of junior officers and non-commissioned officers; and it is precisely because of this that it is specially valuable in India or in our colonies where regular troops are quartered, or in certain Territorial units. Because in the case of our long service army abroad, the problem to be dealt with is not so much the training of the man in the ranks as the training of those who are to command them.

The man in the ranks has learnt his duties sufficiently well in most cases by the time he has completed two or three years' service. He is, or ought to be, an efficient shot. He has learnt what is required of him in camp and in barracks. He is, in fact a trained soldier. Some men will outstrip others in certain directions, if they are ambitious, and desire to become non-commissioned officers, or if mere emulation makes them wish to excel excel in shooting or skill-at-arms, just in the same way as they will excel in games and sport. But the problem presented abroad is no longer how to make the British Soldier efficient but how to keep him so. Attention to his health, to the formation of his character and observation of discipline, are often as important factors in preserving his efficiency as an effort to re-iterate the instruction which he has received with his battalion at home, and of which he probably already has assimilated as much as it is in his power to do so. The standard of military education to enable him to fulfil the part that he will be called upon to play in war is a comparatively low one, and in the case

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of many corps men will have attained it when they have learnt to shoot, have been taught discipline, have mastered a few details of drill, and grasped the duties of guards, sentries and piquets. Any step towards higher efficiency must be preceded, and will only be attained by training officers and non-commissioned officers to lead their men to a higher plane and the tactical model properly utilised will provide opportunity for doing so.

The intelligence and knowledge of officers and non-commissioned officers can be very greatly improved by the systematic discussion of elementary strategy, by illustrations based on military history, and by discussions (on what is, for instructional purposes, the natural ground), of problem connected with the effect of ground on the siting of trenches and other tactical problems. It is in connection with such instructions that a wide field is open to the energies of commanding officers by the use of the tactical model.

In India, the actual role to be played in war by very many of the volunteers, indeed by the great majority, will be connected with the preservation of Internal Security, and will consist of operations against an enemy, undisciplined, practically unorganised, and in all probability, indifferently armed. The problems presented will be very simple, Very often they will consist of the defence of a house, building, or bridge, or of an attack at close quarters or of street-fighting. Large questions of strategy or grand tactics, or even the operations on a modern battlefield of quite ordinary dimensions may be neglected. The value of the tactical model, for volunteers in India, as for regulars, is chiefly shown in the facilities it offers to teach these ranks to instruct and lead others.

In the Territorial force, again, there are certainly some units, although probably not so many as some people seem to imagine, where the knowledge of the men in the ranks is altogether on a higher plane than that which is found amongst the regular battalions. In these cases the private soldier is perhaps perfectly fitted to do what may be term-

Artificial Aid to Training.

ed the "spade work" of soldiering. He only wants discipline to enable him to be a perfectly efficient soldier as far as fighting in the ranks is concerned, and though a tactical model will not supply discipline, no more will any other forms of exercise, except those carried out with units and their officers assembled together for the purpose. Here again, therefore, the problem really is, to train the officers and the non-commissioned officers; and here again, it is by means of the tactical model that this will most readily be accomplished except in a very very few favoured localities, where ground offers facilities close to Headquarters.

Aerial Reconnaissance in Fortress Warfare.

SIDE LIGHTS BY E. KABISCH.

Translation of an article which appeared in the Militaer-Wochenblatt, No. 78, dated Berlin, Tuesday, 9th July 1914.

Not so long ago, the search for covered positions by the artillery, was restricted to howitzers and mortars. No one was capable of imagining field artillery in any other position, than crowning the heights of a battle-field. From such positions only could the eye of the layer follow the rapid changes in the movements of the infantry and cavalry, could the hostile artillery coming into action be subjected to fire, before it could open fire itself. It was expected that the introduction of gun-shields would infuse new vigour into this combat in the open—I would almost say, man against man.

Then came the Russo-Japanese War, and voices demanding covered positions for field artillery began to make themselves heard. At first the opposition was great. I remember a commander of a division, who had been a field artillery officer, making the remark to me during the manoeuvres in the summer of 1906:—"I should not like to show my division the picture of artillery hiding itself behind the hills!" Nevertheless the seekers of cover have won the day, soon it even became necessary to remind the artillery that there are occasions when it should move out into the open, and employ direct fire.

The heavy and garrison artillery had adopted the principle of covered positions even more thoroughly than the field artillery, and had, by earlier development of the system of observation, and of indirect laying, brought the fight from such positions to the highest possible pitch of perfection. For the destructive effect of modern heavy

artillery was so great, that once its shells had correctly found a hostile battery, that battery seemed doomed to annihilation in the course of a few minutes. What was true for field warfare, applied with still greater force to, fortress warfare, and the prospects of the fight between the attacking and the defending artillery had to be weighed according to the facilities for observing the hostile artillery, and the possibility of escaping observation by it. In this matter, the thorough study in time of peace of the ground, of every fold and feature, gave the defender an advantage in the work of discovering the enemy's covered positions, which to some extent counter-balanced the assailant's advantages, due to the greater extent of ground available, and better opportunities for taking advantage of the ground.

In those days, aerial reconnaissance in field and fortress warfare, had already begun to be taken into consideration. The captive balloon was the most important means of carrying out such reconnaissance, and to a limited extent, free balloons were also made use of in fortress warfare. Exaggerated hopes concerning the use of captive balloons were however not entertained. They formed such an excellent target for artillery, that it was absolutely imperative to keep them out of shrapnel range; this however rendered it very difficult for the balloons to discover small targets, especially because in our climate the atmosphere is rarely perfectly clear. Free balloons, it is true, could fly across a fortress and render important service with the aid of photography, but they had to rise to great heights in order to escape being quickly brought down by fire, and the value of the results obtained depended to a great extent on chance. Free balloons were of still less use to the force defending a fortress, since it was impossible to convey photographs of the assailants' dispositions back into the fortress. And in field warfare free balloons were of no use whatever for the reconnaissance of the battle-field.

The modern developments of aerial navigation, and especially of aeroplanes, has brought about an almost complete revolution in these matters. It can now only be a matter

of few years before aeroplanes are so far perfected that they will be able to execute a detailed artillery reconnaissance during the battle, and so raise the magic screen from behind which each belligerent seeks to wound his opponent, without exposing himself to danger. Consequently the development of military aircraft trends infallibly in the direction of fighting craft, which will attack their aerial adversaries, and endeavour to destroy them, so that they may subsequently obtain for their side the enormous advantage inherent in the power to reconnoitre to an unlimited extent, without fear of interference by the enemy, while the latter is deprived of the means of reconnaissance, except by the older and slower methods on the ground. In strategical reconnaissance, eluding and circumventing the enemy is still conceivable, but in tactical reconnaissance it is not to be thought of.

In the meanwhile since, at the outset of a battle, the prospects of obtaining information are generally more or less equal for both sides, it is of first importance for us to see to it that we possess the best air-fleet possible. Should opposing air-fleets be equal, or nearly so, in all respects, they will balance one another, and the two adversaries will know an equal amount about each other. But the artillery on terra firma will throw a considerable weight into the balance, and will succeed in keeping the aerial scouts at a distance, so that many a battery will be able to play its part in the battle without having been discovered because the time available for reconnaissance is restricted. In fortress warfare it is however quite another matter. Here we seem to be on the verge of a complete revolution.

It is impossible from the outset for the defender to maintain supremacy in the air. To begin with, his equipment in aircraft will be limited; the field army, with which lies the decision, must and will always have the advantage in this respect. The fortress will be lucky if at the time that its investment is established it still possesses a few serviceable aeroplanes with pilots to work them. But how long will these be able to hold their own against

the superior air fleet of the assailant? How long will it take till the last aeroplane is rendered useless or the last aviator is shot down?

Replacements of aircraft are out of the question. It is true that aeroplanes from beyond the investing line might fly into the fortress, and chance being shot by friend as well as foe. For who can tell whether the approaching "bird" is a friend or an enemy. But this the field army will "veto" for it will lay claim to everything that is found serviceable in the country.

The defender will, however, still be able to fight the hostile aircraft with his artillery, and I am far from asserting that the besiegers will have it all their own way with their aerial reconnaissance. But it cannot be denied that the prospects of the assailants, as compared with those of the defenders of a fortress, have greatly improved with the development of aviation. The telephotography of the aeroplane will enable it to fix exactly from a safe height and distance, the position of batteries, behind features of the ground which were formerly perfectly screened from the besieger's view. The latter will consequently be enabled greatly to reduce his beaten zones. If the aviators are aided by artillery officers carried in the aeroplane as observers the prospects of being able rapidly to silence defending batteries, not protected by overhead cover become very favourable.

There are but two remedies for the defending force, *viz.*, armour, and masking by tree plantations. An armoured battery cannot, indeed, be concealed from the eye of the aviator, and still less can it escape his camera. But to destroy an armoured battery by means of shell fire necessitates such extreme accuracy that the mere knowledge of the position of an armoured battery, however accurately it may be shown on a plan, represents no decisive gain to the besiegers. Even the aviator observer cannot render the necessary assistance for the purpose, since accurate observation from a flank is necessary in order to systematically and effectively bombard an armoured battery; without this an enormous expenditure of the very heaviest ammunition will be entailed.

Unfortunately this most effective means of protection is so costly that it will only be available to a very limited extent. Another disadvantage of such batteries is that their guns cannot be moved. They cannot be drawn, by portions of the line not actually attacked, to decisive points, nor can they be made use of for siege purposes in the event of the course of the campaign being favourable; this is another reason for economy in the employment of armoured artillery.

This leaves us only the "masked" battery. And this is indeed, given careful previous preparation of the ground, a very effective means of reducing the usefulness of the hostile aerial reconnaissance. It requires some ingenuity of arrangement; isolated narrow strips are naturally of no use. Numerous irregularly grouped plantations are necessary in order to render it difficult to draw correct conclusions from flashes and direction of fire. Extensive plantations of fruit trees scattered here and there in meadows, and even among cornfields, as in Alsace Lorraine, and in the Grand Duchy of Baden are especially effective. In parts of the country where such plantations are the rule, free grants, of young trees, together with grants of money would induce owners of land to plant the trees in suitable positions on their ground and the military authorities would thus be saved the great expense of purchasing the necessary land. The results of this measure would not however be attained at once. Some years will elapse before sufficient cover for the artillery will be gained, and consequently the unfailing future necessity of the measure should be taken into consideration without delay.

But with these defensive measures only half of what is necessary will have been done. The further task of the defender, of the fortress engineer, will be to make the most of commanding points in the country and improve the facilities of observation for the defender as much as possible, so as to compensate him to some extent for his loss of the power of aerial reconnaissance, and to provide a good field of fire up to long ranges in front of infantry positions.

For if the artillery of the defence is not sufficiently successful in its efforts to escape observation by aerial scouts, and cannot hold its own in the duel with an undiscovered enemy, only one course remains open to it, *viz.* to retire so far that the attacking artillery cannot injure it without so far advancing as to expose itself to the defender's view. It might seem that this means sacrificing the defending infantry, which will now be exposed to the heavy artillery, of the besieger without any support from its own artillery. But this is only apparently so, for the fortress engineer will or should have provided the defending infantry with such solid cover, that it can suffer this bombardment with impunity. The attacking infantry alone can force the infantry of the defence to expose itself on the defences. But in order to do so it must advance into the open, where it will be at once exposed to the fire of the defending artillery, which itself is in retired positions beyond the range of the artillery of the attack. Thus the attacking infantry, not being protected by defensive works, will be in a worse position than that of the infantry of the defence.

Here a phenomenon occurs which has been spoken of as the "artillery cartel." The artillery of both sides cease firing at each other and devote their attention to the opposing infantry, upon which then falls the bloody work. The artillery of the attack will however not be able to turn a deaf ear to the calls for support from its own exposed infantry for long, and it will of necessity advance sufficiently far to again engage the retired artillery of the defence. Then begins the actual fight for the decision, and in this phase the ground immediately in front of the defensive infantry positions, up to a distance of 2 kilometres will play a very important part which will vary according to the amount of cover it affords. If in this period of the contest the artillery of the defence is successful in holding its own against the attacking artillery—and its prospects of doing so are now much greater than in the earlier stages—then the infantry attack will come to a standstill.

One condition is of course, understood, *viz* that the infantry of the defence really has absolutely safe cover in underground shelters. If these are not sufficiently strong to withstand the bombardment, the infantry of the defence, which has, as above explained, been forsaken by its own artillery, will collapse under the long range fire of the enemy's heavy guns, and the ruins of the defence work will fall to the besiegers, without serious resistance being offered. In this case there will be none of that gradual working forward from position to position which is so dangerous to the assailants. Only shelters of a permanent nature are sufficiently strong to furnish the necessary protection to the defending infantry.

It is however not at all necessary that these permanent works should be at all points equally strong as regards resisting assault. This would be dependent upon the nature of the foreground and of the special *raison d'être* of any particular portion of the defence works. A clear field of fire and view to a distance of one kilometre is in itself a great source of strength (even at night, in consequence of constant careful examination of the ground with the aid of searchlights) and gives the retired batteries the best opportunity of useful operation—and therefore also gives the defensive lines considerable security against assault. At points, however, where the foreground affords cover to the advancing assailants, especially if it does so at short ranges, the works themselves must be made as strong against assault as possible, because there is danger of the assault being delivered from concealed ground close by, and coming as a surprise while there is no chance of receiving timely assistance from the artillery far away in rear. Careful consideration therefore of each portion of the line to be held; no normal pattern of works for all cases, of standard cost! One thing alone must be the same at all points, *viz.* safe under-ground shelter for troops not in action. A section of front where this is not provided is worthless, and in view of the reduced prospects of success of the defending artillery, brought about by the development of aerial recon-

naissance, will rapidly fall as a cheaply gained prize to an assailant who attacks with energy, method, and sufficient material.

Conclusion drawn.

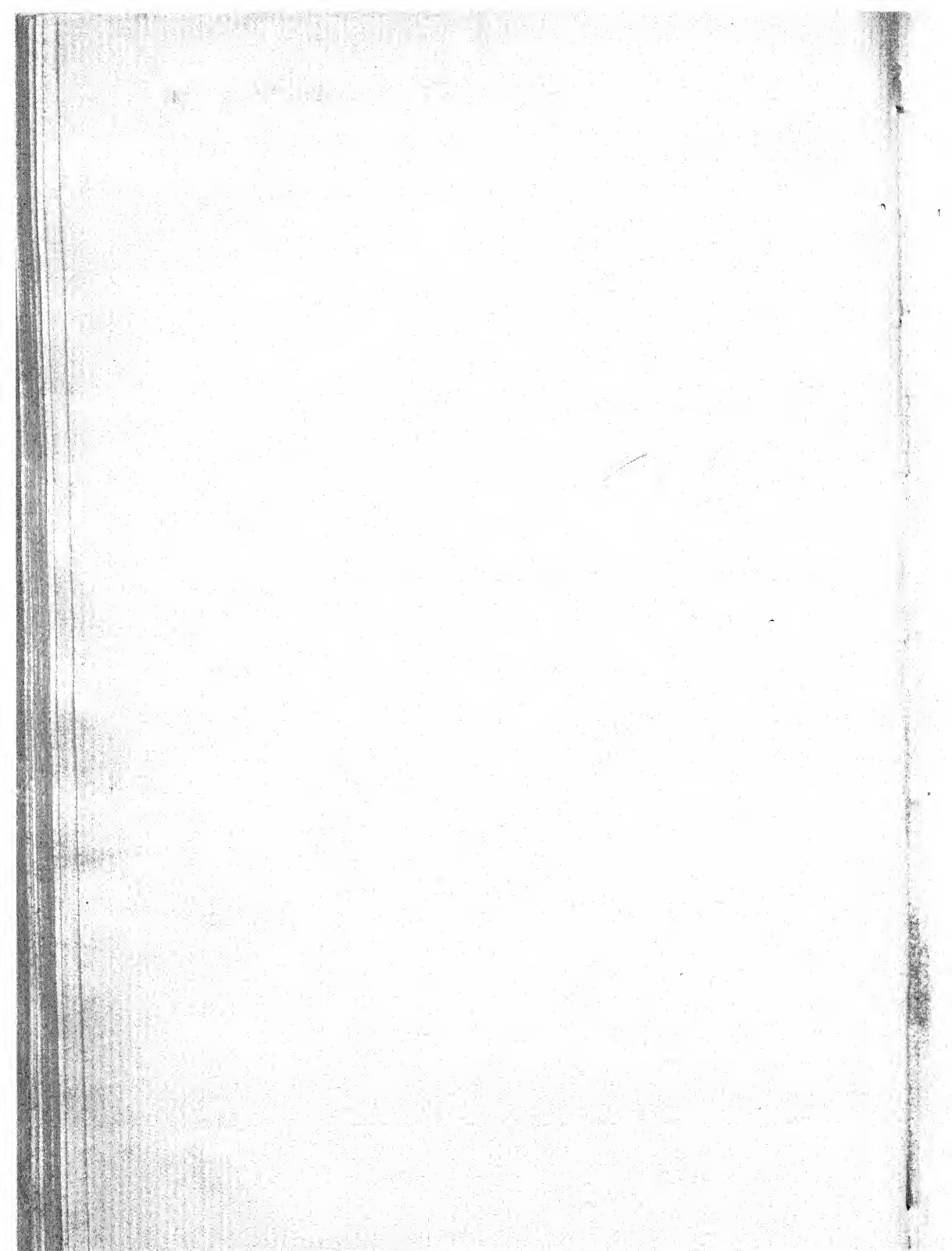
The development of aircraft is almost entirely to the advantage of the attacking force in siege operations. Quite apart from those dangers to the fortress which may arise in consequence of the destructive activity of aeroplanes—a consideration which has here been intentionally avoided—the prospects of the artillery contest have changed very much in favour of the besieging army. A great increase in the equipment of fortresses with armoured batteries is not to be hoped for. The only thing to be done therefore is to provide the artillery of the defence with as much cover from view as possible by means of specially designed plantations, and to accustom ourselves to the idea that the artillery of the defence will soon be compelled to avoid the overpowering fire of the concealed attacking artillery by occupying retired positions, and not seeking a decision, until the infantry attack develops against the infantry of the defence.

If the infantry of the defence is insufficiently protected in its defence works by bombproof shelters, it will soon succumb under the long range fire of the attackers heavy artillery. If however it is in secure shelters underground, the conditions of the combat will be unfavorable to the attack. The attacking force will then be compelled to advance its artillery in order to engage and destroy the defending artillery in a second artillery duel, in which its prospects of success are not so good as they were in the first duel, and in which it may even be completely repulsed.

* * * * *

To some it may appear that in the foregoing remarks, I have not sufficiently recognised the possibilities of aerial reconnaissance by the defending force, in that early discovery of the artillery preparations of the besieging army is not allowed for. True—if the defence is successful in this respect, much will have been gained. But I very much doubt whether

the defending force will have a sufficient air-fleet left even at this stage. For the defender's airfleet will be the very first objective of attack by the besiegers. They will adopt every possible means to bring about its early destruction. How often will an aviator fly out without being successful in discovering what is required, and without being able to furnish decisive information? And in each one of these futile flights the aeroplane is exposed to attempts of the enemy to destroy it. It is better therefore not to let ourselves be deceived by false hopes, but to recognize the seriousness of the situation, and make our arrangements accordingly, as long as there is time. If, when the time comes, things turn out not as bad as has been allowed for, so much the better—much will have been gained; if the reverse comes true, and that is the important possibility for present consideration—then nothing will have been lost.



Translations from Russian Newspapers,

"Turkeŭstanskaya Viedomosti" of 3rd (16th) July 1914.

AUSTRIAN ARMAMENTS.

The warlike preparations of Austria are becoming more and more menacing. In the last 18 months the Dual Monarchy has devoted more than $1\frac{1}{2}$ milliards of crowns to extraordinary expenditure on armaments. These unusual efforts commenced immediately after the signing of the Treaty of Bucharest. They are necessitated, according to a speech of the late Archduke Francis Ferdinand by the change in the political and military situation in the Near East.

The latest Austrian plans are somewhat as follows:—To create strong fortifications in Galicia along the Russian frontier. Until lately the plan of operations of the combined Austrian and German armies against Russia was the simultaneous advance on Brest-Litovski of 6 German Corps from the north and 4 Austrian Corps from the south. This plan of operations was calculated on the assumption that Russia would adopt a defensive role until her mobilization and strategical deployment was completed. But now the Austrian general staff, apparently fearing that the Russian army will be in a position to adopt the offensive much earlier, overrun Galicia, and seize the passes through the Carpathians, is demanding 23 million crowns for the purpose of strengthening the fortifications of Cracow and Przemyśl and of fortifying the defiles leading from Galicia through the Carpathians,

All corps are being supplied with heavy howitzer batteries. This action is evidently called for by the experiences of recent wars, which go to prove the importance of heavy artillery in field operations.

To counteract the recent additions to the cavalry of the Russian frontier garrisons the Hungarian cavalry, which

will act against the Russian cavalry in the opening stages of the campaign, is to be reorganized.

The annual contingent of recruits is to be increased by 34,000 for the regular army, 10,000 for the Landwehr, and 10,000 for the Honved, so that the total of the annual contingent will now amount to 262,000 men.

It is also proposed to strengthen considerably the frontier of Bosnia and Herzegovina towards Serbia and Montenegro. Work has already been commenced on new forts at Zvornik, Vishegrad, and Serebryanik, which command the approaches from the Servian frontier to Sarajevo.

"Turkestanshaya Vedomosti" of 5th (18th) July 1914.

THE FOREIGN POLICY OF HOLLAND.

In general the Russian press devotes little space or attention to the foreign policy of Holland, and from this many of the public assume that foreign affairs have little interest for the cabinet at the Hague. However any reader of the German press will perceive that Holland is deeply concerned in certain questions of present day international policy.

First in importance is the fact that Holland, whose naval and military strength are both inconsiderable, is not protected from attempts against her independence by any international agreements such as guarantee the integrity of Belgium, Luxemburg, and Switzerland. Holland is a sovereign kingdom and has full right to form alliances and agreements of an offensive or defensive character.

It will be asked why the Dutch government has always declined to make use of this right and has most carefully avoided any close association with the powers of either the Triple Alliance or the Triple Entente. This may be explained by a disinclination to undertake the onerous obligations, which such a course would impose on the Dutch treasury, and also by the conviction that Great Britain will never permit any attempt on the part of Germany to limit the independence of Holland.

Of late years, however, this conviction has somewhat weakened, especially after German policy succeeded in insisting, despite British protests, on the construction of fortifications around Flushing, which are designed to prevent the landing of the British expeditionary force in case of war between Germany and Great Britain.

At the time of the Flushing incident a certain section of the German press with its usual frankness spoke of the necessity of including the Netherlands in the German confederation, and it became clear to all that in the event of a conflict between the Triple Alliance and the Triple Entente the German general staff would not for one moment think of respecting the neutrality of Holland and Belgium.

This state of affairs is now fully realized by many Dutch statesmen and consequently there is an idea of concluding a military convention between Holland and Belgium with the object of defending the integrity of these two states. However in the opinion of many this alone is insufficient protection against German chauvinism. Consequently in the Dutch papers articles are frequently to be seen which openly advocate an understanding with the powers of the Triple Entente. It is to be hoped that the Hague government will be convinced on the wisdom of taking this step without undue delay.

"Reck" of 12th (25) July 1914.

THE AUSTRIAN ULTIMATUM.

The storm cloud of which we spoke last Monday has burst. The Austrian Government has presented to Servia a note which has all the characteristics of an ultimatum. The demands stated therein exceed expectation. Servia is required not only to admit the participation of the Austrian authorities in the enquiries and prosecutions connected with the Sarajevo crime but also the punishment of all officers

concerned in the anti-Austrian movement and a formal renunciation of all schemes of territorial expansion at the expense of Austria. In other words Serbia is to give up her national ideal of a united Servian nation and prosecute all persons who have endeavoured to further this ideal. The question of punishing the instigators of the Sarajevo crime is thus relegated to the background and the traditional Austrian policy of humiliating Serbia comes to the front.

The Austrian note has already called forth the condemnation of our council of ministers, and as a result Russia has addressed a note to Austria suggesting a prolongation of the term of the ultimatum and the mediation of the powers. The Russian note, however does not fully appreciate the seriousness of the situation. On the Austrian and—more important—on the German, side it has been definitely stated that the quarrel between Austria and Serbia must be localized if possible. The nature of the dispute and the short period allowed by the ultimatum do not permit of mediation. If Serbia is obstinate, war is bound to follow and in case of Serbia receiving support from outside (a plain hint to Russia) it is indicated clearly enough that Germany will support her ally. The sharp tone of the Austrian note scarcely permits of retreat, and in case of a negative or evasive answer on the part of Serbia we must be prepared for the inevitable consequences.

Serbia especially after the Russian note to Austria, is not likely to give a wholly satisfactory reply. Our encouragement has already been given to Serbia and we must take a certain share of responsibility for the consequences; but it is not in our power to hinder the course of events. Those who prepared the ultimatum and agreed to its being sent, hold the scales of war and peace.

Do we desire or not desire a European war? Do we or do we not consider the moment chosen by our adversaries opportune for ourselves? These are the questions to be decided and not whether Serbia has deserved the treatment to which she is being subjected by Austria.

"Rusky Invalid" 13th (26th) July 1914.

RUSSIAN ARMY.

**NEW LAW REGARDING THE OFFICERS OF THE RESERVE AND
MILITIA.**

The new law introduced in June last will considerably facilitate the system of providing the Russian troops in war term with a full compliment of officers.

The previous regulations of 1882, which have been in force up to now, proved to be unsatisfactory in the war of 1904-05 and the present law has as its aim the improvement in all respects of the personnel of the officers of the Reserve, the raising of the standard of their efficiency, the fixing of their numbers in peace time and the acceleration of the period taken to present themselves at Headquarters when called out.

For the improvement of the personnel the law contains new rules for the discharging from service individuals who while in the Reserve have become unfitted for military service. Each year in January officers of the Reserve have to furnish the registration departments with a doctor's certificate showing the state of their health.

Similarly officers whose life and character show them to be unworthy of an officers' calling will be excluded from the Reserve and it is proposed to render officers of the Reserve liable to be called before the officers "courts of honour" which obtain in the army.

To enable the number to be fixed with more certainty the law lays down a period of 7 days in which the Reserve officers certificate has to be presented to the Commanding Officers of the District both when he joins the Reserve and when he changes his place of abode. Non-compliance renders him liable to a fine from 10 roubles up to 100 roubles. (£ 1 to £ 10 approx.)

The term allowed for Reserve officers to join their Regiments on mobilization has now been reduced.

Heretofore, an officer need not appear with his unit earlier than the 9th day, as he was allowed,—2 days to settle domestic affairs, 3 days to equip himself and 3 days to resign his employment. Adding to this the term taken for the journey from his home in most cases the officer would not report himself until the tenth or twelfth day.

Now however, the officer is allowed only 3 days in all for arranging his affairs, equipment and leaving his employment. At the expiration of this he is allowed time for his journey to Headquarters by mileage as under:—

- (1) By railway 200 miles in 24 hours.
- (2) „ water 66 „ „ „ „
- (3) „ road 33 „ „ „ „

The same rules now apply to officers and officials of the militia (opolchenie).

“*Turkestanская Вѣдомости*” of 13th (26th) July 1914.

AUSTRIA AND SERBIA.

The murder of the Archduke Franz Ferdinand has brought up a new cloud on the Balkan horizon. Quite naturally the crime has roused the deepest feeling in Austria, and, committed as it was by a Servian, has directed national animosity into an anti-Servian channel. Relations between the two neighbouring monarchies have never been good, and since the late Balkan war which resulted in the creation of a greater Serbia blocking Austria's way to a port on the Aegean, Austrian ill-feeling has grown even more bitter. Serbia, conscious of her strength, has more than once given Austria to understand that she is no longer an insignificant state which can be safely ignored. Under these circumstances it is not to be wondered at that after the murder of the Archduke conjectures began to be made

in Austria that the plot was devised outside Bosnia. Conjectures and surmises soon became categorical assertions, and before any real light was shed on the circumstances of the crime a portion of the Austrian press had decided that the only way to preserve Austrian honour was to declare war on Servia.

In Europe no particular attention was paid to this by no means unprecedented rattling of the Austrian sabre; moreover the Austrian government made a demi-official announcement that there was no concrete proofs of Servian complicity in the Sarajevo crime.

However the press campaign continued and even increased in violence, the Austrian press being supported by several German papers. Servia is doing everything possible to avoid war and has expressed her readiness to comply with the Austrian demands so long as the latter are presented in a form not derogatory to Servian prestige.

According to to-day's telegrams Austria has not thought fit to consider this condition and has presented to Servia an ultimatum which the latter cannot possibly accept.

The Berlin bourse was the first to realise the seriousness of the situation. Here as early as the 7th July the values of securities fell to an unprecedented degree.

There still remains a faint hope that wiser councils will prevail in Vienna, and that the shadow of war now hanging over us may be dispelled.

"Berh" 14th (27th) July 1914.

AUSTRIA'S NOTE TO SERVIA.

The newspaper gives extracts from leading articles published by the *Novoe Vremya*. These are given below.

Austria-Hungary alone, without direct and assumed support from Germany would never have resolved on the open violation of international right. The German Emperor had only to say two words and Austro-Hungarian diplomacy

would have recalled its ultimatum. He knew that Russia could not remain indifferent to an attack on Serbia and would have to support her with all the weight of her armed forces. The Austrian attack on Serbia meant war with Russia. A Russo-Austrian war would call into action German alliance obligations; hostilities between Germany and Russia would automatically call for the interference of France and perhaps of England. The whole of Europe on account of the thoughtless claims of the Austrian forgers of false documents may be engulfed in an ocean of fire and blood.

In another article the question is raised:—

Are we on the eve of a general European war, of a bloody cataclysm, from the ghastly effects of which Europe will only recover after many decades, or are we merely passing through a sharp political crisis which we may still hope may be settled?

The answer to this must be sought for in Berlin. If Germany has decided that it is disadvantageous for her to await a further development of strength of the Dual Alliance and chiefly of Russia and that therefore she must have war at the present moment, no diplomatic measures of the Powers can be of any avail.

There is then no doubt that the sending by the Austrian Government of its unheard of note took place with the participation of Germany, that this unusual step with relation to Serbia was worked out by Berlin and Vienna together with the object of provoking war and involving in it Russia and consequently France.

The newspaper, however, admits another possibility. Some diplomats are inclined to suppose that the Austrian Government only informed the Berlin cabinet of its action against Serbia at the eleventh hour and communicated the text of the note without (?) first obtaining sanction and that Berlin only upheld the step on account of its alliance obligation. If this is true, though the situation remains extremely critical, there is a faint hope of a favourable issue.

"Turkestanskaya Vedomosti" of 15th (28th) July, 1914.

THE AUSTRO-SERVIAN CRISIS.

War between Austria and Servia may already be considered an accomplished fact. There is no need for any official declaration of war. As soon as diplomatic relations are broken off it may be assumed that war has begun. The efforts of Austrian diplomatists to create a *casus belli* at all costs have with German assistance been crowned with success. All the concessions made by Servia are of no avail. It has been resolved in Vienna to profit by the internal troubles in Russia and England to strike a decisive blow. The German press with one accord declares that to avoid a general conflagration Austria must be left free to settle her quarrel with Servia. This is an obvious threat against Russia and her allies. There is now no doubt remaining that the whole affair is a direct challenge presented by the Triple Alliance to the Triple Entente.

Yesterday's manifestations in Berlin in front of the Russian legation show how German public opinion is disposed towards Russia and form an eloquent portent of future events.

Russian aims in the Balkans are of long standing and cannot be abandoned; this was clearly stated in the official announcement in the "Pravitelstvenni Vyestnik." Sympathy with our Slav brethren burns unquenchably in the heart of every Russian. It is hardly necessary to point out how ill-founded are German calculations based on Russian internal troubles, which have lately expressed themselves in labour strikes. However serious the labour question may be, our working men are first of all Russians to whom the sacred obligation to their fatherland and to their Balkan kindred comes before everything else. It is to be hoped that this fact will be grasped by foreign diplomatists and that this new adventure will like previous ones be limited to a rattling of the Teutonic sabre.

"Russki Invalid" of 15th (28th) July 1914.

AUSTRIA AND SERVIA.

On the 10th (23rd) July Baron Gisl, the Austrian Ambassador at Belgrade, presented to the Servian government a note with a demand for reply within 48 hours. The contents of the note were such as to render a satisfactory reply on all points impossible. M. Pasich handed to the Ambassador an answer which was pronounced unsatisfactory, and Baron Gisl with his staff left Belgrade. Diplomatic relations were thus broken off and, judging by the brusque tone of the Austrian note an armed attack on Servia is to be expected.

An unfortunate circumstance for Servia is that her territory is surrounded on two sides by Austrian territory. On the north the frontier runs with Hungary for about 300 kilometres and the west with Bosnia for about 200 kilometres. An invasion of Servia is thus possible from two directions. Another inconvenience is the situation of the capital on the extreme northern frontier at the confluence of the Danube and the Save. On the other hand the northern frontier is guarded to a certain extent by these two rivers which form a good natural obstacle.

In Hungary five lines of railway run towards the Danube frontier of Servia, beginning from the east as follows:— to Orsof, Basiasa, Kesevar, Panchkof and Semlin (opposite Belgrade where there is a railway bridge across the River Danube), To the frontier on the Save railways run to Klenak (opposite Shahbatz) and to Mitrovitz; all these are single lines. These lines with their branches lead from the location of the 7th Austrian corps at Temesvar, the 4th at Buda-Pesth, and the 13th at Zagreb.

Within Servian limits the main line through Nish leads to the frontier at Belgrade and has branches to Smedervo on the Danube and Sabreja on the Save. Shahbatz on the Save is connected by railway with Losnitza on the Bosnian frontier.

Western Servia is very unprotected. For 150 kilometres the Drina forms the frontier, but the southern portion in what was formerly the Sanjak of Novi-Bazar is quite open. To this portion of the frontier the railway from Sarajevo the headquarters of the 15th Austrian Corps, approaches.

The Servian capital is only weakly defended and in view of danger from bombardment from the opposite bank of the Danube the government is to be removed to Krushevatz, which is situated on the branch railway to the west of the main line.

On the northern frontier there is danger of the capital being bombarded, but there is more danger of invasion on the west, the Austrian corps most conveniently situated for this purpose being the 15th at Sarajevo, the 16th at Mostor and Ragusa, and the 13th at Zagreb.

"Novoe Vremya" of 25th July (7th August) 1914.

THE AUSTRIAN DECLARATION OF WAR.

To-day at 6 p.m. the Austrian Ambassador handed to our Minister of Foreign Affairs a note containing a declaration of war. Thus on our western frontier we find ourselves from to-day at war with two powers, Germany and Austria.

The Austrian declaration did not come as a surprise. On the contrary it is at first sight strange that it did not come earlier, at the same time as that of Germany. The delay may be explained by Austria wishing that the declaration of war should come from Russia. Then, relying on the text of the treaty of the Triple Alliance, Austria had hopes that Italy might be induced to take up arms. Even if Russia had declared war on Austria Italy could still have maintained that the war was begun by Germany and was not of the defensive nature provided for by the alliance. However this may be Austria

evidently hoped that, if she could provoke a declaration of war from Russia, Italy might be induced to co-operate. The intervention of England made longer delay impossible for Austria.

The strength of Anstria is not particularly formidable either on land or sea. No great activity is to be expected from the fleet which will probably retire to Pola and remain there under cover of the fortress guns. The peace strength of the Austrian army is about 420,000 which number can be doubled in time of war. Even if the Austrian army ceases to carry on an offensive war on the southern frontier to prevent a Servian invasion of Hungary, the necessity of watching Roumania and of leaving troops in the districts populated by Slavs tends to reduce still further the numbers which can be placed in the field to oppose Russia.

"Норое Уремпа" of 25th July (7th August 1914.)

MOBILIZATION IN RUSSIA.

Mobilization is being rapidly completed and from everywhere reports are coming in of the extraordinary enthusiasm and wonderful regularity with which it has been carried out. Peasants who only heard of the call to arms in the morning presented themselves at their places of assembly the same evening. Detachments of reservists have been despatched rapidly and punctually from all stations even in districts populated mainly by German colonists.

The Germans, when they declared war, were very much out in their calculations in this respect. They fully expected that on the first announcement of mobilization in Russia class and party dissensions would arise and internal disorders begin. Nothing could be further from reality. All have risen conscious of the righteousness of the cause and unanimous in their desire to put an end to German aggression. Only a few days have elapsed and men of every class, moujiks and town workers, officials, engineers, students, all have eagerly responded to the call to arms.

"Turkestan'skaya Vedomosti" 26th July (8th August) 1914.

THE GERMAN ARMY.

The 25 Army Corps of the German Army are organized into eight army administrations (lit: inspection), the Inspectors General of which in the event of mobilization, receive the rank and power of Army Commanders. The I Army administration consists of the 1st Army Corps (General von Francois), headquarters of staff,—the fortress of Königsberg; the 17th army corps (General von Makkensen) headquarters Dantzig, and the 20th army corps (General von Sholtz) headquarters, Allenstein. At the head of the I administration is General von Prittwitz Haffron (born 1848) served in wars of 1866 and 1870.

The II administration, headquarters Berlin, is under the late war minister (1909 to 1913) General von Heeringen (born 1850) served in 1870 war, severely wounded at Worth. In this administration are the Guards Corps (General Baron Plettenberg), 12th Army Corps (General D'Elsa) and the 19th Army Corps (General Kirchbach).

The III administration comprises the 7th, 9th and 10th Army Corps, headquarters at Hanover. Inspector-General, General von Bulow (born 1846) served in 1866 and 1870 campaigns, commander of 7th Army Corps, General von Einem-Rotmaler (born 1853) war minister from 1903-1909.

The IV administration contains the 3rd Army Corps and 1st, 2nd and 3rd Bavarian Army Corps. Headquarters München. Inspector-General, Prince Rupert of Bavaria.

The V administration is composed of the 8th, 14th, and 15th Army Corps, headquarters Karlsruhe; Inspector-General, Fredrick, Grand Duke of Baden. Commander of the 14th Army Corps, General Baron Hoh-Hünigen-Hüne (born 1849, served in war with France; Military Attache in London and Paris 1882-1891).

In the VI administration are the 4th, 11th and 13th Army Corps under Inspector-General Count Albrecht of

Wurtenburg (born 1865, descendant of the well known General of the Russian service Alexander of Wurtenburg). Headquarters at Stuttgart. Commander of the 4th Army Corps. General Sixt von Armin, served in 1870.

The VII administration is composed of the 16th, 18th and 21st Army Corps. Inspector-General, General von Eichorn (born 1848, fought in 1866 and 1870). Headquarters at Saarbrücken.

The VIII administration contains the 2nd, 5th and 6th Army Corps. Inspector-General von Kluck (born 1846 served in war of 1870). Headquarters Berlin.

The Staff of the 2nd Army Corps is in the fortress of Stettin. Commander, General von Linsinshik. General von Strantz commands the 5th Army Corps. The staff of the 6th Army Corps is at the fortress of Breslau. Commander General von Pritzelvitz.

The post of Chief of the General Staff has been held since 1906 by the Adjutant General Helmuth von Moltke, nephew of the famous field marshal. General Moltke is 66 and Emperor William II has great confidence in him.

"Turkestan'skaya Vedomoste" 27th July (9th August) 1914.

THE FAR EAST HOW AFFECTED BY THE EUROPEAN.

CONFLICT.

Chief interest is centred in Japan who intends to figure as a real ally of England and to take part in the operations against Germany. Such an attitude on the part of Japan undoubtedly has a vital interest for all as it would have considerable influence on the fate of the German colonies in China, Australasia and in the Pacific Ocean. Germany, as is known, holds in China the province Kiaochao with the town of Tsing-Tao and in the Pacific the Marian islands, the archipelago with the islands Radak and Ralik, the Bismark archipelago with the islands Mer-

lenburg, Bougain Ville and the Solomon Islands, the Island of Pomerania, the eastern part of New Guinea, Samoa and several others.

All these islands, taken together, represent a valuable asset for a naval power as they furnish a series of coaling stations and might serve as more or less strong bases for military and naval operations and sea trade.

It will be understood that in the event of a European conflict all these German colonies remain quite unprotected and Japan would have no difficulty in occupying them and at the same time it would favour her expansion to the South towards Sunde islands and Australia which she commenced some time ago.

It is unnecessary to point out that in the event of the occupation of Kiao-Chao, Japan would deal a heavy blow at German affairs in China and acquire a completely equipped district and a whole group of railway and other concessions.

Kiao-Chao is connected by a small sea journey with the western shores of Korea and has a promising future as the point of departure of exports for a considerable portion of the Shantung peninsular which is rich in minerals of all kinds. From here at present German influence is spreading and interfering with English and Japanese trade in the valley of the Yangtse-Kiang. Japan is not likely to dismiss lightly an opportunity of driving Germany from the Far East in her capacity as England's ally.

"Baziedchick" 29th July (11th August) 1914.

GERMANY'S ARMED FORCES.

The German Army, by the resolution of the 3rd July 1913, was to be brought up by the end of 1915 to the strength 661,500 rank and file.

Since last year, all the 2 battalion infantry regiments (22) have received a third battalion; so that now there are at the present time 217 regiments of 3 battalions each. The

rifle battalions have not been organized and remain 18 as before.

Each infantry regiment and rifle battalion has a machine gun detachment and each rifle battalion an automobile company in addition.

The Cavalry last autumn were brought up to 110 five-squadron regiments comprising 55 brigades. The brigades are distributed to 48 infantry divisions, exclusive of the 4 brigades of the Guards which in peace time form the Guards Cavalry division.

In addition to this, there are 11 cavalry machine gun detachments, which are distributed on manœuvres one to each of the cavalry divisions. From this we gather that the Germans in war time will have no less than 11 cavalry divisions. It is impossible to say exactly of what strength these divisions will be but probably they will consist of 6 regiments.

By autumn of 1913 the Field Artillery had been reorganized.

Each infantry division has an artillery brigade consisting of two 6 battery regiments.

Beside this, 11 artillery regiments have each a Horse Artillery division, each consisting of 4 batteries. Altogether there are 600 batteries of 6 guns each and 33 batteries of 4 guns each, giving a total of 3,732 field guns.

In this number are included Field Howitzer batteries, information regarding the number of these has not been communicated to the Press.

At the end of last year also there were in Germany 24 regiments of heavy field artillery or foot artillery as the Germans call them, regiments of two battalion strength. In each battalion there are 4 batteries. Altogether there are 190 batteries of foot artillery. The Sapper troops consisted of 29 Sapper battalions. By the bill passed in 1912, 4 battalions were to be formed and by that of 1913 another 11 battalions. In the autumn of 1913 there were 35 of them with 4 companies each. Of this number 26 were field troops and 9 fortress troops. Each battalion has

a search-light detachment. Each corps has one transport battalion of 4 companies.

The normal strength of a German corps in war time is as follows:—

In the corps there are two divisions.

„ „ division „ „ four infantry 3 battalion regiments
(sometimes a rifle battalion is added)

1 cavalry regiment (4 squadrons)

1 F. A. Bde. with ammunition columns.

1 Medical company

1 Divisional Pontoon park

1 Sapper Company.

Besides this, the corps has

A corps telephone detachment

„ „ telegraph „

1 battalion of heavy howitzers

a pontoon park

Ammunition columns.

We know the following data regarding the strip of the German Empire which borders on Russia from the handbook entitled "Our neighbours" compiled by a group of officers of the General Staff.

The strength of the Army in war time is about $3\frac{1}{2}$ millions. The whole of the strip bordering on the Russian frontier is divided by natural boundaries into several separate theatres. 1. *Eastern Prussian*, lying east of the Vistula has the following strategical significance for the Germans:—

(a) It runs for 200 miles into Russian territory and is bounded on the North by the Baltic Sea commended by the German Fleet.

(b) It lies on the flank of the routes leading from the Russian Vistula to Berlin.

(c) Occupying a central position, it forms a natural base for all operations on Riga and Vilna, to envelop the defensive system of the Russian Vistula, i.e., towards Brest—Litovsk and to the flank of the

line of operation of the Russian Army Vistula—Oder.

2. *Posen theatre*, which includes the area between the rivers Vistula, Nesta (right tributary of the Oder) Wart, and Bartsch (right tributary of the Oder); it comprises the straightest and shortest route from the Russian advanced area to Berlin. As a base for a German invasion of Russia it is convenient as it leads to the head of the strong defence system of the Russian Vistula.

3. *Silesian theatre*, lying to the South of the Posen area, between the rivers Bartsch, Oder, Neisse (left tributary of the Oder) and the Silesian hills, is situated to the flank of the probable direction of Russian operation. For the Germans, it is important as a communication with the Austrians; for the Russians because it forms the shortest route into Slavonic Bohemia.

Of the probable areas of concentration of the German Army it is possible to judge partly by the development of detraining stations and the building of military platforms.

In this respect in the East Prussian area, the following three districts are clearly defined:—

(1) the triangle Shensee-Soldau-Osterode which admits of the arrival and unloading of 210 trains daily.

(2) the triangle Rujani-Lotazn-Lyck for 90 trains daily,

(3) the triangle Insterburg-Stallupenen-Goldapp for 120 trains.

In the Posen theatre; the area Thorn-Inowraslaw-Gnseno for 200 trains, which allows about 10 army corps to be brought up in 6 days.

In the Silesian theatre there is almost a complete absence of military platforms.

Engineering preparations have been mostly developed in the East Prussian area. On the right bank of the Vistula there is the Thorn fortified area comprising the 1st class fortress of Thorn and the defences at Fordon, Kulm and Graudentz. The defences at Dirschau and Marienburg safeguard the crossings of the Vistula and Nogat. On the left flank of the Vistula is the 1st class maritime fortress

of Dantzig. Königsberg—a first class fortress, the redoubt of Eastern Prussia, became a maritime fortress when the sea canal was constructed.

The Eastern front consists of the positions at Tapiau and Labiau the defences along the line of the Mazura lakes with the central redoubt the frontier fort Boien at Lotzen.

Information has been received also of defences on all the roads leading across the wooded and marshy ground on the southern front Johannisburg—Thorn.

In the Posen theatre only the most probable line towards Berlin has been barred by the fortress of Posen. A flanking movement from the North would come within striking distance of the Thorn defended are while one from the South would come upon the fortress of Glogau.

“The Exchange News” gives us the following data of the German armed forces.

The German corps are stationed at the following points.
The Guard Corps (1st and 2nd Divn. and Guards Cavalry Division) Berlin.

First Corps	(1st and 2nd Divn.)	Königsberg.
2nd ”	(3rd and 4th ”)	Stettin.
3rd ”	(5th and 6th ”)	Berlin.
4th ”	(7th and 8th ”)	Magdeburg.
5th ”	(9th and 10th ”)	Posen.
6th ”	(11th and 12th ”)	Breslau.
7th ”	(13th and 14th ”)	Munster.
8th ”	(15th and 16th ”)	Koblentz.
9th ”	(17th and 18th ”)	Altona.
10th ”	(19th and 20th ”)	Hanover.
11th ”	(22nd and 38th ”)	Kassel.
12th Saxon Corps	(23rd and 32nd Divn.)	Dresden
13th Wurtemberg	(26th and 27th ”)	Stuttgart
14th Corps	(28th and 27th ”)	Karlsruhe
15th ”	(30th and 31st ”)	Strassburg
16th ”	(33rd and 34th ”)	Metz
17th ”	(35th and 36th ”)	Dantzig
18th ”	(21st and 25th ”)	Frankfort

19th Saxon Corps	(24th and 40th Divn.)	Leipzig
20th Corps	(37th and 41st	„) Allenstein
21st „	(31st and 24th	„) Saarbruchen
1st Bavarian Corps		Munchen.
2nd „	„	Wurzburg
3rd „	„	Nurenberg

All these corps form 7 armies. Out of these 3 are formed on the Russian frontier. The VIth, Ist and IInd.

ON THE RUSSIAN FRONTIER.

The VIth Army is disposed in East Prussia and is formed of 3 corps, the first at Konigsberg, the 17th Dantzic and the 20th several miles from the frontier at Allenstein. In war time, these three corps would be reinforced by one more newly formed one. The fortress of Konigsberg allows for the concentration and manoeuvring of the VIth Army.

The 1st German Army whose headquarters evidently will be Posen consists of the 5th Corps at Posen, the 2nd at Stettin, and the 9th at Altona. In this area are the fortresses of Posen, Thorn, Graudentz and Kulm. The whole belt of defence occupies about 14 miles. The garrison of Thorn in war time is about 40,000 men. There are stations for dirigibles in the fortress. Of these forts that of Posen admits of the concentration and manoeuvring of the 1st German Army.

The II German Army, according to the peace establishment, consists of the 6th corps, headquarters Breslau, the 12th headquarter Dresden, and the 19th, headquarters Leipzig. One more corps is to be formed in war time. Army Headquarters are fixed at the fortress of Breslau. Other fortresses in this area are Kustrin and Glogau. These are of an ancient type and of little importance. South of Breslau is the Austrian fortress of Krakow which might serve as point d'appui for the German army.

ON THE FRENCH FRONTIER.

Of the remaining 4 German armies, three are disposed on the French frontier and one in the centre of Germany. The last army, the IVth, consists of the 3rd and 4th Prussian, and 1st, 2nd and 3rd Bavarian corps. Thus there are altogether in the IV army in peace time five corps and apparently in war time there are to be six. As far as may be judged from its central position in the country, this army would serve as a strategical reserve capable of being sent either to the Russian frontier or to the French frontier as the progress of the war demanded.

The three armies on the French frontier are the VIIth, Vth and IIInd.

Directly on the frontier at the Duchy of Luxemburg is the VIIth Army consisting of 8th corps, Head Quarters at Coblenz, 16th—Head Quarters, Metz and 21st Head Quarters, Saarbruchen. At the head of the VIIth army is to be General Von Eichorn. Behind the VIIth army moved forward as an advanced guard directly to the French frontier is the Vth Army which contains the 14th Corps (Karlsruhe), 15th Corps (Strassburg) Friedrich, Grand Duke of Baden apparently to command this Army.

The above two armies, it will have been noticed only contain three and two corps respectively. They would be made up to 4—5 corps strength at the beginning of a war.

The IIIth German Army occupies quite a distinct position, stretched out from Holland and Hanover to the frontiers of Austria. In its composition there are 4 corps—the 7th (H. Q. Munster), the 10th (H. Q. Hanover) the 18th (H. Q. Frankfort and Maine) and the 13th (H. Q. Stuttgart).

This army is distributed along the whole of Germany from north to south, apparently with the idea that in case of emergency each corps might avail itself of a separate road for a quick march to the Russian frontier. At the same time this army could conveniently move into the French frontier. In this way, if the IVth army formed a strategical reserve throughout the war, then the extended IIIrd army would

only be a strategical reserve at the beginning of hostilities. As soon as it was known whom Germany is going for,—France or Russia—the IIIrd Army could be then moved accordingly.

Consequently it may be assumed that Germany has assigned three armies to operate on the Russian frontier and the same number against the French frontier, but of course in the first days of the war Germany will try to concentrate as great a force as possible against one of her opponents in order to crush one and then operate against the other.

DIRECTION OF THE FIRST ATTACK OF THE GERMANS.

Up to now it has been assumed that Germany would first of all fall on France, leaving a holding force (lit: screen) against Russia. It is difficult to believe that the Germans would act otherwise, for if they were at once to fall upon Russia they would have to leave the whole of the French frontier insufficiently protected. Nothing would then prevent the French army invading Alsace-Lorraine and penetrating further to Berlin.

Again, if Germany first operates against France, she cannot limit herself to the three armies posted near the frontier. She would necessarily have to move up her strategical reserve, the IVth army from Magdeburg, Wurzburg, Nuremberg and Munchen. But this too would be insufficient and in all probability she would bring up to the frontier the Guards Corps from Berlin and separate corps from the Ist and II armies; the corps of these armies stand one behind the other forming two long prependiculars. (Altona-Posen and Leipzig-Breslau), to the Russian frontier. Thus from the rear ends of these prependiculars the Germans can take from Altona and Leipzig a corps each for the French frontier.

The Germans could take no more troops from the Russian frontier. On this frontier there will then remain the VIth Army (Konigsberg) and 4-6 corps at Posen and Breslau.

This, at the first advance, 4/5th of the whole of the German Army can be moved up to the French frontier.

Reckoning the number of trained troops as 4·3 millions, this gives them about 3·4 millions. It is necessary here to observe that, by this Germany leaves only a million on the Russian frontier which is quite insufficient to protect her fortresses.

However the position of Germany is such that she must, first of all beat France, even if this were accompanied by the surrender of certain of her eastern provinces. The German General Staff considers such ceding of territory as as only temporary and presumes that, having finished with France, the German Army would recover all that had been lost.

Thus reason the Germans, but every country has its own plans in which are taken into account the plans of their opponent, and everything done to prevent their fulfilment.

"Novoe Vremya" of 29th July (11th August) 1913.

In order to obtain a full understanding of the present state of affairs one must first of all enquire how it is that Germany finds herself opposed simultaneously by the three most powerful European powers. German diplomacy has obviously made a terrible blunder. How has this blunder been made and in what does it consist?

For many years we have stated as an axiom that war is inevitable, and have insisted throughout on the bellicose intentions of the Emperor William. German policy has been continuously directed towards preparation for war. The Germans have invested millions in their army and fleet and sooner or later they were bound to require dividends on their investments. These dividends can only be in the form of conquests.

War was inevitable either against the Franco-Russian alliance on land or against England on the sea. It was Germany's intention to settle first with England.

Germany did not attack Russia at the time of the Russo-Japanese war but she did not refrain out of any kindly feeling for us. The reason lay deeper, namely that Germany, preparing for a struggle for the command of the sea, considered it necessary to secure, if not the assistance, at any rate the passive attitude of Russia. The calculation appeared to be a simple one: Russia will never be on good terms with the ally of Japan and France will not forget Fashoda, thus England will be isolated. We all remember how in 1907-08 a wave of not ill-founded alarm passed over England. War with England was then only a question of seizing an opportune moment.

However the plans of the German General Staff were thwarted, paradoxical as it may appear, by the existence of Triple Alliance. Count Ahrenthal wished to immortalize his name in annals of Austrian diplomacy by taking advantage of the temporary weakness of Russia, and therefore annexed Bosnia. This annexation turned out to be a severe check to the German plans. Directed primarily against Russia it nullified all the advantages which Germany had gained by her forbearance in the Russo-Japanese war. Refusal to support the Austrians would have meant a rupture of good relations with them and deprivation of their assistance in the projected struggle with England. To support them meant to give up all hope of cultivating good relations with Russia. From the time of the annexation of Bosnia the position of Germany became most complicated, for it was obvious that the war towards which Austria was drifting was not the war which Germany was trying to precipitate. Austria was drawing Germany towards a war with Slavism, which was a secondary object of German plans. It was in vain for Count Bulow in October 1909 to try to refute the arguments of those who stated in the Reichstag that Germany was being led by the nose by Austria.

Austria has been the detrimental factor in the Triple Alliance in another respect also. The annexation of Bosnia and the Austrian attitude during the Balkan wars caused

great uneasiness in Italy, which has had as a result the falling away of Italy from the Alliance.

War on three fronts simultaneously is the natural result of German provocatory policy. This has been carried out in close conjunction with Vienna but it appears that Vienna had her own particular ends to serve in no way coinciding with German plans. The result is that each has brought its own special enemy into the conflict.

"Turkestanskaya Vedomosti" 30th July (12th August) 1914.

THE CAUSE OF GERMAN AGGRESSION.

In a long article devoted to the consideration of German policy in Southern Europe, the writer endeavours to show that the present campaign was entirely engineered by the Germans in pursuance of the ambitious policy of Count von Bismarck which was set afoot in 1878. The Germans, he says, decided long ago that they must take the place in Europe of fast disappearing Turkey and that consequently everything that stood in the way of their sovereignty over the Balkans and Macedonia must be wiped from the face of the earth.

After Russia's defeat of Turkey in 1875-78 it became evident that Turkey could no longer exist in Europe and that Slavonic Balkan kingdoms must take her place.

The Germans did not wish this and Bismarck devoted all his talent and energy to preventing it. His plan was (1) as far as possible to disunite the Slavs, (2) to impoverish them and make them dependent on the Germans in trade and economic respects.

Servia forms the chief menace to the Germans in the Balkans. The vast majority of Slavs in the peninsular are Servians. They populate Servia, Bosnia, Herzegovina, Montenegro, the Novi Bazar Sandjak and Macedonia. It was necessary therefore to bring pressure to bear on this country, to separate from it as many of the other Servians and to smother it until it fell a victim into German hands.

With a view to this, the two provinces of Bosnia and Hertzegovina were occupied by Austrian troops and everything done to germanize the inhabitants and in the end Serbia was cut off from the Adriatic Sea and prevented from developing its independent trade. After this it was found expedient to separate Serbia from Montenegro, who as a warlike and independent state might unfavourably influence its neighbour.

To this end, the Novi Bazar Sandjak was created. In the south, Turkey was left in possession of Macedonia which denied to Serbia an exit to Salonica on the Aegean Sea and close her in on this side.

In continuation of their policy the Germans then engineered the war between the Servians and Bulgarians in 1885 and the plan of Bismarck appeared to be nearing fulfilment until a reaction set in, the Slavs began to come to their senses and to suspect their common enemy. This trend of thought resulted eventually in the formation of Balkan Alliance and the declaration by it of war against Turkey. From the war Serbia emerged stronger than before and with access to the Adriatic Sea and the Aegean Sea at the Greek port of Salonica, she began to breathe more freely.

The Germans next tried to create an Alliance hostile to Serbia and Montenegro by means of their agents and, as known, a German prince was sent to try and restore order and rule the Albanians but this scheme was doomed to failure. The deep laid plans of the Germans for the enslavement of the Balkan Slavs seemed to have been brought to nought.

Also, simultaneously with the above scheme, an effort had been directed towards the strengthening of German influence in Asiatic Turkey. Germany obtained a concession for the construction of the great Bagdad railway which begins almost at Constantinople and traversing the whole territory of Turkey, ends at Bagdad in Mesopotamia itself. Along this line they obtained many other railway and trade concessions and in this war began the work of replacing Turkey from the Eastern Asiatic end. We know too, that the command and instruction of the Turkish Army is in German hands. In a word, they have attained considerable success there.

The position now is this. The failure of their Balkan scheme would render all their enterprises in Asia Minor useless. On the other hand the extinction of Servia's independence would at once bring their plans to their fruition. The whole peninsula would remain in their hands. Montenegro would be wiped off the map. The Eastern shore of the Adriatic would become their possession. Bulgaria would remain in dependence and into their hands would fall the Bosphorus, Sea of Marmora and the Dardanelles which would remain eternally closed, not only for Russian war vessels but for Russian trade.

"Thus the whole of Southern Russia, which is adjacent to the Black Sea," concludes the writer of the article," would remain in uncontrolled dependence on Germany and we should be smothered like Servia."

In full realization of these important issues, Germany using the trifling pretext of the Servian cause of Prince Franz Ferdinand's assassination, has brought about the war between Austria and Servia by means of the unacceptable ultimatum delivered to the latter country.

"Rech" of 31st July (13th August) 1914.

THE ATTITUDE OF BERLIN.

The enthusiasm prevalent after the announcement of mobilization has rapidly cooled down now that news of Italian neutrality and British intervention has been published. In Berlin no great hopes were entertained of Italy's assistance. The Italian fleet was counted on to a certain extent to neutralize the effect of the French naval forces, but on land little advantage was looked for. However, the action of England has had a stunning effect. After the visit of the British squadron to Kiel and the interchange of courtesies there the Germans were convinced that England

would stand aside. This made them confident of victory and occasioned the enthusiasm with which the Berliners sent off each body of troops to east and west. The papers are trying to maintain this enthusiasm by publishing false reports of the taking of Warsaw, of the confiscation of Russian gold in Poland, and of the detention of 40,000 Russian labourers in Pomerania, by which they say that the Russian army is deprived of a whole corps. Nevertheless a feeling of discouragement is growing. The papers were very confident in predicting certain victory if England remained neutral so that now they cannot convince anyone that the inclusion of England among the allies makes no difference.

Before the news of British intervention the German public was assured that the war would not last more than two or three months, but now they see that in any case it must be prolonged. For industrial Germany this is worse than a serious reverse in the field. Every German knows that Russia supported by England can continue the struggle almost indefinitely.

The Germans appear to have greatly underestimated the power of their enemies. They appear to have a very poor idea of the French, and us Russians they consider serious enemies only on account of our numbers. They also encourage themselves by the fact that the railway communications are in different and that a very strong revolutionary tendency exists, which will prevent troops being removed from the interior provinces. In order to stimulate belief in this, false telegrams have been published describing the attempted assassination of the royal personage in St. Petersburg and of a state of anarchy prevailing in the Caucasus.

Without exaggeration it may be said that in Berlin alarm has taken the place of confidence, although it is not outwardly displayed to any great extent. According to the Copenhagen papers the social democratic journal "Vorwärts" was suppressed because it adopted an alarmist tone and placed all responsibility for future events on the Emperor William.

"Ashkabad" 10th September, 1914.

HOW CAN TURKEY THREATEN US.

A part of the Press authoritatively maintains that Turkey will take no action. If so, all the better, but that Turkey is preparing to take action, of that there is and can be no doubt. Let us consider how the Sublime Porte can threaten us if Turkey does take action.

The Turkish Army is going through a period of reorganization. On paper, it is true, the reorganization has already been completed, but in fact it is far from being the case. But let us suppose for a minute that Enver Bey and von Sanders have achieved miracles, and that Turkey has completed her military reforms. Then we must calculate that the army consists of 101 divisions, each of 3 regiments of 4 battalions, or a total on mobilization of 1,212,000 bayonets, 48 regiments of cavalry and 38 regiments of Artillery (1618 guns); engineers, train, sappers and other specialist troops bring the strength of the Army in time of war to 1,400,000 of all ranks.

It is a powerful force, but it must be remembered that of the 101 divisions of infantry only 43 are *Nizam* (regular army) and 58 are *Redif* (reserve army) possessing in time of peace extremely weak cadres. In the last Balkan war and in the Russo-Turkish war of 1877-78, the *Redif* proved themselves far inferior to the *Nizam*. We may consider that at the present time too their qualities have not improved.

Considering the 14 corps and 5 independent divisions of *Nizam*, we see that this force is not so terrible, and in addition it is so disposed that it cannot be transferred at once to the Russian frontier. In the Erzerum district are only 3 *Nizam* Corps (9th, 10th and 11th) and in the Baghdad district two Corps (12th and 13th) in the Yemen one Corps (14th). The remaining troops are concentrated in European Turkey and round Constantinople.

Of course at present, while preparing for a war with Russia, Turkey might transfer a corps from her European to her Asiatic frontier, but we must remember that there are no railways leading to the Russian frontier. Turkey has never yet moved troops by sea and dare not do so for in spite of the acquisition of the "Goeben" and the "Breslau" our Black Sea fleet is stronger than the Turkish. They would have therefore to march their troops for many hundreds of miles through intersected and mountainous country. It would be impossible to concentrate her army quickly. Even if this were possible, Turkey dare not expose her European frontier and Asiatic coast of the Mediterranean. Both von Sanders and Enver Bey know well that intervention by Turkey inevitably would lead to intervention by Greece, and that there is a danger of a descent by the Greek Army 500,000 strong. It is obvious that Turkey must leave about half her army to meet the Greeks.

On the other side intervention by Turkey will also lead to intervention by England. The English would not bring troops from the mother-country but the Egyptian army and sepoy from India could be moved to the Yemen (the English have long had their eye on that province) and to Mesopotamia. Such an expedition is not so very difficult. In British India are stationed 52 battalions and 9 cavalry regiments of British troops, and 9 field divisions and 8 cavalry brigades of Indian troops.

Besides there remain several tens of thousands of auxiliary troops of the Indian Native States, who have placed their services at the disposal of England. These troops are trained by English officers and in any case are of greater value than Turkish *Redif*. Thus we should have an army totalling 100,000 men operating in rear of troops engaged with our Caucasian Corps. The transport of this army requires, according the calculations of the British naval general staff a fleet of 850,000 tons (170,000 tons per field division completely equipped). It would not be so hard for England to mobilize such a fleet.

Remember that now commercial steamers are built up to 20,000 tons and more.

To sum up we see that Turkey can hardly place against Russia, even if her army reform has been completed, more than 500,000 men of whom the Nizam only form about half; and as the army reform has not been completed Enver Bey with difficulty can launch against the Caucasian frontier, with the utmost efforts of the country 500,000 men of whom a good 150,000 to 200,000 are *Redif*—Does not this explain the feverish fortification of the frontier. Turkey herself, in challenging us, does not believe in the possibility of offensive warfare but is preparing for defensive. The intervention of Turkey is not so terrible. It will be of course a very great strain on Russia to have to oppose yet another foe, but we will live through the treat if it falls to our lot. Have we not lived through such already. But Turkey risks being unable to survive the war.



Correspondence.

We publish a letter from Field Marshal Lord Hill, Commander-in-Chief, addressed to General Sir Henry Fane, Commander-in-Chief in India, and also a copy of the note by the Duke of Wellington on the proposed operations in Afghanistan. They are lent to the Council of the United Service Institution by Colonel Fane, C. B., who has them in his possession with other papers and letters which have come into his possession as the direct descendant of the late Sir Henry Fane.

Copy of Letter from Lord Hill, Commander-in-Chief.

HORSE GUARDS,

December 4th 1838.

MY DEAR SIR HENRY,

I have the pleasure to acknowledge the receipt of your two letters marked private, dated Simla, July 22nd and August 14th acquainting me that for the reasons therein stated you had received orders to assemble a Force of about 10,000 men on the river Sutlege near Ferozapore as soon as practicable after the rains shall cease and that Sujah-ul-Mulk is also assembling troops at Loodiana, that you calculate to arrive before Candahar the last week in February with a view to ulterior operations in Cabul in conjunction with the whole of the Force under Ranjeet Singh. As the magnitude of the intended operations must unquestionably be productive of the most important, and I trust beneficial consequences to the interests of our Empire in India, I was naturally desirous to obtain the sentiments of that individual whose practical experience upon this, as upon all other military affairs is universally acknowledged and I therefore put your letters confidentially into the hands of the Duke of Wellington. His Grace having with his usual kindness stated his opinion at some length upon the whole matter, I enclose herewith a copy of his Memorandum and

which having been also communicated by me to H. M. Government, they have thought it highly desirable that the Governor-General should be in possession of so valuable a document and have signified their intention to send a copy to his Lordship accordingly. You will have the goodness to consider this as transmitted by me solely for your information as proceeding from so high a source, but as in no way whatever in the hope of instruction *i. e.*, it being beyond my authority to exercise any controlling power over the military measures which you are concerting and carrying on under the proper and legitimate direction of the Governor General.

With the best wishes for your health and success throughout these novel and interesting operations.

I remain,
My dear Henry,
Very faithfully yours,
(Sd.) HILL.

STRATFIELD SAYE—*Memorandum. November 21st 1838.*

I have perused with attention the papers sent to me regarding the operations under Sir Henry Fane.

I will put out of consideration for the moment the political questions, although I think that it appears that if Herat should not fall, no more will be done than assemble the force upon the Sutlege in the end of November.

Decided upon by Lord Auckland, contrary to the advice of Sir A. Burnes and the Commander-in-Chief who both pointed out the extreme danger of meddling with the Afghan nation, as also the danger of operations carried on so far from India with our rear liable to be closed up by hostile Tribes, occupying the strongest country in the world between us and *British India.*

I suppose however that the operation is to be carried on as proposed.

I think the force proposed to be assembled fully sufficient for its object.

It is in point of numbers very nearly as large a single British Army as has ever been assembled in India. It has as large a body of Artillery as it ought to have. If well equipped with stores and provisions and means of transport

that corps might be marched to any part of Asia, provided the communication with it is preserved; that tranquility prevails in its rear, and that sufficient reserves are established as well upon the Sutlege as upon the Indus; the last as proposed by Sir Henry Fane, in order to secure those objects, and the permanent superiority of Sir Henry Fane, and to render him independent of and to enable him to command and enforce obedience on the part of the loose and faithless allies on whose assistance he must depend.

On the 22nd July Sir Henry Fane states his design to embark on the Sutlege and to fall down that River and the Ghawah to the Indus.

Sir Henry never intended the army to go down the River in boats, about 90 boats were collected and went down loaded with heavy stores, these boats were used for the bridge thrown across the Indus. They besides picked up all the sick from the column marching parallel with the course of the River.

That would never do; and in his subsequent paper of the 14th August, Sir Henry Fane has proposed to march down the left Bank of the Sutlege and the Ghawah—He is quite

right—His Corps disembarking on the right bank of the Indus would be immovable and useless on landing from its boats.—It would be re-equipped with all the means of movement in the midst of barbarous and hostile countries. Much time would be lost, and probably after all it might never be possible to re-equip the corps as it ought to be to enable it to move and to render it consistent with the safety or the honor of the corps to undertake any operation with it.

I will advert presently to the assistance expected at Shikarpoor from Bombay. I mention the subject now only to observe that the Corps from Bombay will only render matters more difficult if Sir Henry Fane should come by water, instead of marching.

It does not follow that Sir Henry Fane should not relieve the fatigues and difficulties of the march by the left of the rivers, by the use of the navigation of them. But what I contend for is that he should depend upon the equipment of his Army for its movement, and the movement of stores, provisions and baggage, which he must

have when he moves from the Indus, rather than upon the navigation of the rivers which he must lose when he makes his first movement from the Indus.

There is certainly great difficulty in the march to Shikarpoor. It will be made in part through hostile territory in the possession of warlike tribes. But I fear nothing for Sir Henry Fane's Corps, excepting its inability to move; and the want of support and countenance for its operations by the due disposition for that purpose of the other parts of the Army in India.

Having passed the Indus as proposed the whole question is one of means of movement. If Sir Henry Fane should have it in his power to move, he can march or halt as he pleases, and I have no apprehension for seasons or anything else.

I quite concur in the proposition to bring a corps up the Indus from Bombay. It must be observed however, that this corps from Bombay embarked in ships or in boats with all its stores, provisions, equipments, and baggage, will be absolutely incapable of making a march from the river; excepting by the assistance to be procured in a barbarous and hostile country; or from the main army from the Bengal Provinces under the command of Sir Henry Fane.

Shikarpoor, the River Indus, the fleet from Bombay, and the force which it will bring will be the new basis for the operations of Sir Henry Fane in Central Asia, and it will rest with him to take the proper measures for the security of that basis, by fortifying posts by troops or others measures; relying upon it that if his own Corps can move the security of his basis and of the communications with Bombay by the Indus, and with the reserves on the frontiers of the Bengal Province by the Deccan and the Sutlege is more important to him than any small reinforcement that he might draw to the field from the Bombay Army on the Indus.

In respect to the expedition up the Indus from Bombay, I observe in looking over the work to which reference is

made by Sir Henry Fane, that it is stated that the current in that river runs two miles and a half an hour.

Mind this is against the progress of the Bombay Army; and is besides the tide at the entrance, and in the lower part of the river. Surely it is worth the expense of a few thousand pounds to send out steam vessels, even tugs to secure this communication in the shortest possible space of time.

I'll venture here to state one political opinion. It is this:—If this communication by steam once finds its way into the Indus, if only as far as Shikarpoor it will never be driven out of it, and a more decisive step will have been taken to establish the influence of England.

English commerce and manufactures in Central Asia to the detriment of Russia, then can be taken by any other means. The Government of Bombay should be ordered to send with its troops supplies of ammunition stores, and provisions for the larger army from Bengal, and upon this subject should be placed under the direction of Sir Henry Fane.

In respect to other matters, India is very much changed indeed since I was engaged in Indian affairs, if Sir Henry Fane should be able to make this march even to the Sutlege without exciting every disturbed spirit throughout the Peninsula.

The whole of the subsidiary forces of the armies of the Allies which can be depended upon, and of the Armies of Bengal, Madras, and Bombay, and Ceylon, should be put under arms and assembled each in such stations as may be thought best calculated to resist the violation of the general peace by any.

This measure will cost money—If it gives security and prevents war the saving will be immense, all that it will cost will be well spent.

The eyes of the world are upon us in carrying on these transactions. We ought to carry them on, not as a little expedition into Central Asia, that is impossible; but as a great, powerful, and wise nation, and leave nothing to chance.

I have reason to believe that the country has acquired a good deal of reputation by the vigour of its measures in the east, and, particularly in this Persian affair. We must take care that no misfortune happens anywhere in consequence of these operations under Sir Henry Fane. But here I am touching upon politics again which I wish to avoid.

To conclude I *wish* that the whole operation may be avoided. If it is to be carried on let it be by march along the river and not by embarkation. Let means of navigation by steam be sent in profusion without loss of time. Take care that there are sufficient reserves in the field on the frontier of the Bengal Provinces, and that all the Armies in India completed in the field at the station most likely to enable them to secure tranquility during the period in which Sir Henry Fane will be thus engaged. These measures will render the operation a safe one; which after all, I sincerely and anxiously wish that it may not be necessary to undertake.

Copy of the Duke of Wellington's Paper upon the operation of Sir Henry Fane.

STRATFIELD SAYE,

29th November 1838.

I see that they talk of sending all the stores of the army by the river to Shikarpoor. They may rely upon it that if they don't take with them from the provinces under the Government of Bengal all the means of transport to move the stores, provisions, and baggage which the Army requires, and this in profusion, the army will not only be inefficient, and do nothing, but will be in a state of danger and be ultimately defeated.

Animals, elephants, camels, mules, horses, bullocks whether to be used in draft or to carry loads cannot be transported long distances by water. They must march, their marching if not done to excess inures them to fatigue and renders them more efficient and useful.

The whole organization and equipment of the army and all its departments ought to be made without reckon-

ing upon navigating the river. If this is not thoroughly understood the army will not be in a state of efficiency to be in security.

I advert to this because I see it stated in a newspaper that an advertisement has been published in Bengal calling for tenders for boats on the Sutlege, as the provisions and stores of the army were to be sent by the river to Shikarpoor.

Believe me,

(Signed)

W.

Quarterly Summary of Military News and Items of Interest.

ARMY HEADQUARTERS.

I. The following pay, allowances, etc., have been granted to officers of the Indian Army Reserve of Officers, who may be called out for Army Service during the present emergency :—

- (a) Indian Army pay of rank, *plus* staff pay, as for regular officers performing similar duties (when called up).
- (b) Privileges, concessions, gratuities and pensions of various kinds, as for officers of the regular army on being called up for Service.
- (c) Grant of temporary rank in the army.
- (d) Outfit allowance of Rs. 600.

II. Sanction has been accorded to officers accompanying overseas expeditions, whose families are residing out of India, making family remittances through Government. Such remittances will be made by the Military Accounts Department.

III. When an officer has been suspended by special order of the Government of India, and is subsequently tried and convicted by court-martial or the enquiry into his conduct proves unfavourable to him, the Government of India will decide whether the time passed under suspension shall reckon as service for pension or not.

IV. Owing to the war the Government of India calls on English gentlemen in India, including those serving in Volunteer Corps to join the Indian Army Reserve of Officers. Candidates must not be over 35 years of age.

Quarterly Summary of Military News.**CONDITIONS OF SERVICE.**

- (a) Indian pay of rank *plus* staff pay as for regular officers performing similar duties.
- (b) Privileges, concessions, gratuities and pensions of various kinds as for officers of the regular army.
- (c) Grant of temporary rank in the army.
- (d) Outfit allowance of Rs. 600

The monthly pay and allowances of officers joining as second lieutenants will be as follows :—

Cavalry	...	...	Rs. 456-14-0	per mensem.
Infantry	...	...	„ 403-12-0	„ „

V. From the 5th August, the Government of India have sanctioned the opening of a Patriotic Fund for the relief of families of British and Indian soldiers and followers who are killed or died from the effect of wounds received or sickness contracted on active service.

The fund will be administered under the general superintendence of a central committee.

Committees will be formed in each Brigade Area for the purpose of considering claims for relief.

VI. At an emergent meeting of the committee and members of the Military Widows' Fund, British Service, on 2nd October 1914, it was decided that the new Rule V.-A. permitting a subscriber ordered on active service from India to continue as a subscriber until 6 months after the official termination of the campaign, irrespective of his continuing to be borne on the Indian Establishment, be introduced forthwith; (ii) that the provisions of the new Rule V.-A., be extended to a subscriber who, though not ordered on active service from India, is ordered from India elsewhere because of the exigencies of the service due to the present European situation; (iii) that the proposed increase of 50 per cent. to the maintenance allowance provided by Rule XXVII be held in abeyance until the close of the present European War, when a decision will be

arrived at as to whether the financial state of the Fund will permit any increase to the maintenance allowance provided under existing rules, and, if so, to what extent; and (iv) that the recent resolution of the committee to close the Fund from 1st August 1914, to all new subscribers, be relaxed to the extent of permitting officers who become eligible for the first time to join the fund, or who marry after the 1st August 1914, to become subscribers with eligibility to participate in the full benefits of the Fund.

VII. Family allotments to families of all ranks who have proceeded on service overseas, are payable by the Military Accounts Department.

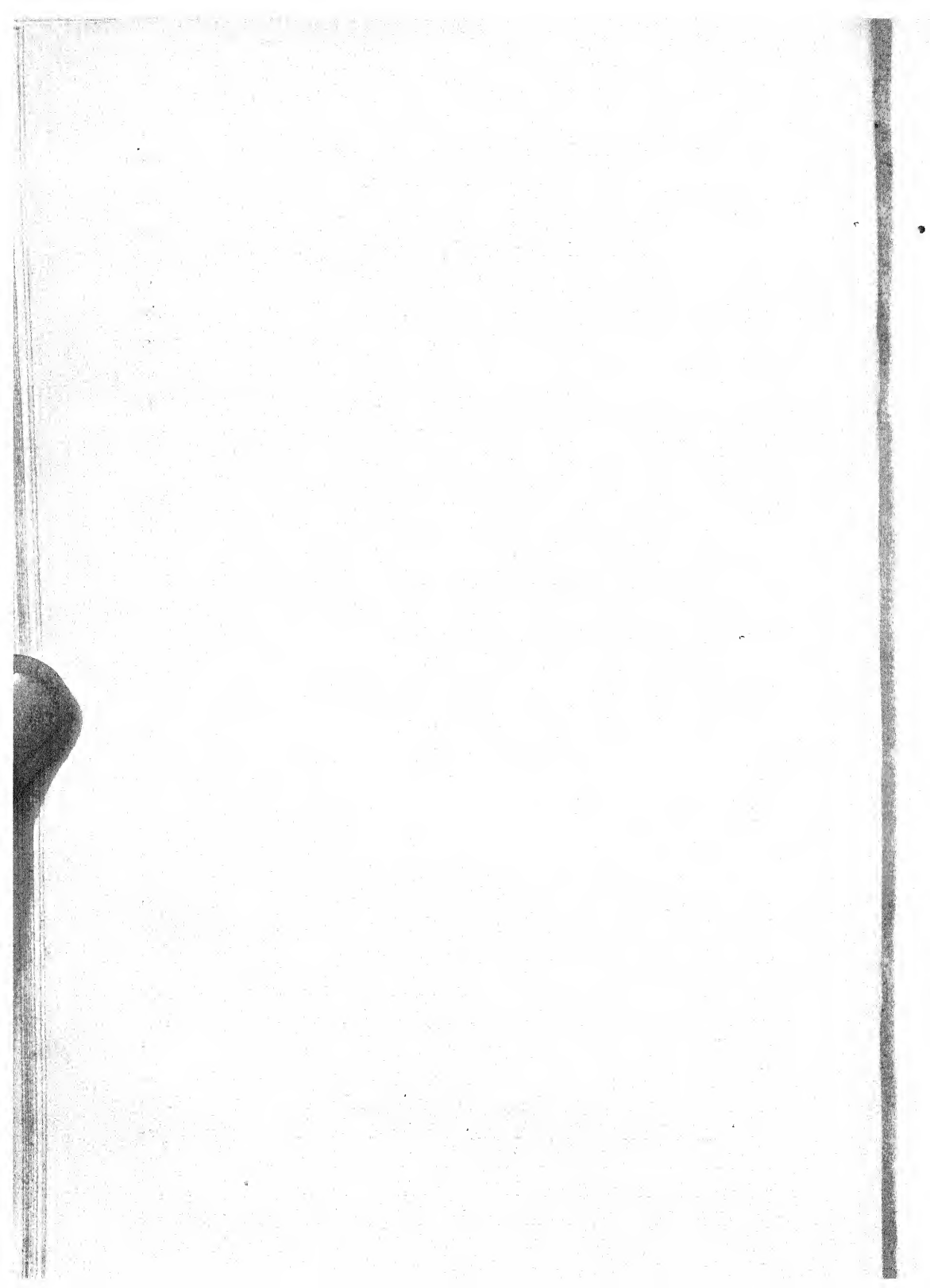
In the case of families residing in India, the Divisional Disbursing Officer of a Division from which a unit or individual proceeded on service will make payments.

In the case of families residing at Home, the Divisional Disbursing Officer at the base will make arrangements for the payments of families through India Office.

VIII. The Great Indian Peninsular, East Indian, Bombay Baroda and Central India, Oudh and Rohilkand, and Eastern Bengal State, Railways have agreed to extend the concession of travelling on Form E, in a first class carriage on payment of 2nd class fare, now granted to captains and subalterns, doing duty with regiments, to students at the Staff College. It will be remembered that the North-Western Railway granted this concession in March 1914.

IX. The Government of India have granted free passage to the United Kingdom, or any British Dominion, to the families of all officers proceeding overseas with Indian Expeditionary Forces. Those who could not be accommodated in transports were permitted to go in private steamers. The families of all British soldiers, who have gone with Expeditionary Forces, are being sent home also; they will probably all reach England by the New Year.

The Relief Programme for 1914-15 has been cancelled owing to the War.



Reviews of Books.

The Times (London) History of the War.

The first three parts of this work were reviewed in the Journal for October 1914, since when parts 4 and 5 have been received.

Chapter VII reviews the history, development and organization of the British land forces and shows how the question of the organization of the regular forces is complicated by the necessity of finding drafts for the units serving abroad, rendering the formation of a large reserve much more difficult in the case of the British Army than in the case of armies raised almost exclusively for service in their home countries.

Chapter VIII deals briefly with the Canadian forces, describes at greater length the organization of the Australian and New Zealand forces, where the principle of compulsory training has been adopted, and also describes the South African forces, which were at the outbreak of war in their infancy.

Chapter IX does not come up to the standard of the rest of the work. It deals with the Indian Army and, instead of any attempt to describe the history, development and peculiarities of this army, gives a somewhat rhetorical and inaccurate account of some of the races who are enlisted. For instance, it conveys a wrong impression to say that the reconstitution of the Madras infantry battalions in 1891-93 and 1903, made more room for the Dogras, for in the 15 reconstituted battalions there are only 8 companies of Dogras as opposed to 112 companies of other races, principally Punjabi Mahomedans. The description of the Dogras again on page 159 gives the impression that they are agriculturists from the plains, instead of clansmen from the hills to call whom "ploughman" is an insult which is bitterly resented. The illustrations in this chapter too appear to have been collected in a museum; as a typical sowar, Indian cavalry, is shown a man of a Madras cavalry regiment in an obsolete equipment and armed with a Snider carbine; as a group of Mahomedan officers and men, lancers and infantry, is given a party of the Khyber Rifles, a corps that does not belong to the Indian Army, armed with Snider rifles.

Chapter X describes the great unanimity with which the whole British Empire responded to the call to arms.

Chapters XI, XII and XIII, which deal with the financial and commercial aspects of the war, will be Greek to many of the readers, unacquainted with Stock Exchange and commercial technical phraseology, but will no doubt be of interest to those whose professions or private means have led them to make a study of such problems.

With the exception of Chapter IX, the illustrations are excellent and the general appearance of the work is worthy of the great paper whose name it bears.

*Tactics and the Landscape by Captain T. Bedford Franklin.
Published by Gale and Polden, Ltd. Price 3s net.*

At the present juncture, when quantities of young officers are hurriedly training themselves for service in the field, this book should be of very great value.

The author, at the beginning of the book, gives a contoured map showing a piece of English scenery. The reader is asked to place himself in the position of the officer commanding various parts of a force moving in this piece of ground and is told the action he should take at each juncture.

The reader is not supposed to command more than a company and is taken through an approach march, the attack and defence of and retirement from a position.

The action is then considered from the point of view of the enemy.

The book is illustrated by 9 plates showing in landscape form the appearance of the ground shown in the map. It is therefore not only a lesson in elementary tactics but also in map reading.

United Service Institution of India.

PRIZE ESSAY GOLD MEDALLISTS.

(With rank of Officers at the date of the Essay.)

- 1872...ROBERTS, Lieut.-Col. F. S., V.C., C.B., R.A.
1873...COLQUHOUN, Capt. J. A. S., R.A.
1874...COLQUHOUN, Capt. J. A. S., R.A.
1879...ST. JOHN, Maj. O. B. C., R.E.
1880...BARROW, Lieut. E. G., 7th Bengal Infantry.
1882...MASON, Lieut. A. H., R.E.
1883...COLLEN, Maj. E. H. H., S.C.
1884...BARROW, Capt. E. G., 7th Bengal Infantry.
1887...YATE, Lieut. A. C., 27th Baluch Infantry.
1888...MAUDE, Capt. F. N., R.E.
 YOUNG, Maj. G. F., 24th Punjab Infantry (specially
 awarded a silver medal).
1889...DUFF, Capt. B., 9th Bengal Infantry.
1890...MAGUIRE, Capt. C. M., 2nd Cav., Hyderabad Contingent.
1891...CARDEW, Lieut. F. G., 10th Bengal Lancers.
1893...BULLOCK, Maj. G. M., Devonshire Regiment.
1894...CARTER, Capt. F. C., Northumberland Fusiliers.
1895...NEVILLE, Lieut.-Col. J. P. C., 14th Bengal Lancers.
1896...BINGLEY, Capt. A. H., 7th Bengal Infantry.
1897...NAPIER, Capt. G. S. F., Oxfordshire Light Infantry.
1898...MULLALLY, Maj. H., R.E.
 CLAY, Capt. C. H., 43rd Gurkha Rifles (specially awarded a
 silver medal).
1899...NEVILLE, Col. J. P. C., S.C.
1900...THUILLIER, Capt. H. F., R.E.
 LUBBOCK, Capt. G., R.E., (specially awarded a silver medal).
1901...RANKEN, Lieut.-Col. G. P., 46th Punjab Infantry.
1902...TURNER, Capt. H. H. F., 2nd Bengal Lancers.
1903...HAMILTON, Maj. W. G., D.S.O., Norfolk Regiment.
 BOND, CAPT. R. F. G., R.E. (specially awarded a silver medal).
1904...MACMUNN, Maj. G. F., D.S.O., R.F.A.
1905...COCKERILL, Maj. G. K., Royal Warwickshire Regiment.
1907...WOOD, Maj. E. J. M., 99th Deccan Infantry.
1908...JEUDWINE, Maj. H. S., R.A.
1909...MOLYNEUX, Maj. E. M. J., D.S.O., 12th Cavalry.
 ELSMIE, Maj. A. M. S., 56th Rifles F.F. (specially awarded a
 silver medal).
1911...Mr. D. PETRIE, M.A., Punjab Police.
1912...CARTER, Major B. C., The King's Regiment.
1913...Major A. G. Thomson, 58th Vaughan's Rifles (F.F.)
1914...Lieut.-Colonel W. F. BAINBRIDGE, D.S.O., 51st Sikhs, (F.F.)
 Major C. L. Norman, M.V.O., Q.V.O., Corps of Guides (spec-
 ially awarded a Silver Medal).

MacGregor Memorial Medallists.

(With rank of Officers at the date of the Award.)

- 1889—BELL, Col. M. S., V.C., R.E. (specially awarded a gold medal).
- 1890—YOUNGHUSBAND, Capt. F. E., King's Dragoon Guards.
- 1891—SAWYER, Major H. A., 45th Sikhs.
RAMZAN KHAN, Havildar, 3rd Sikhs.
- 1892—VAUGHAN, Capt. H. B., 7th Bengal Infantry.
JAGGAT SINGH, Havildar, 19th Punjab Infantry.
- 1893—BOWER, Capt. H. 17th Bengal Cavalry (specially awarded a gold medal)
FAZALDAD KHAN, Dafadar, 17th Bengal Cavalry.
- 1894—O'SULLIVAN, Major G. H. W., R.E.
MULL SINGH, Sowar, 6th Bengal Cavalry.
- 1895—DAVIES, Capt. H. R., Oxfordshire Light Infantry.
GANGA DYAL SINGH, Havildar, 2nd Rajputs.
- 1896—COCKERILL, Lieut. G. K., 28th Punjab Infantry.
GHULAM NABI, Sepoy, Q. O. Corps of Guides.
- 1897—SWAYNE, Capt. E. J. E., 16th Rajput Infantry.
SHAHZAD MIR, Dafadar, 11th Bengal Lancers.
- 1898—WALKER, Capt. H. B., Duke of Cornwall's Light Infantry.
ADAM KHAN, Havildar, Q. O. Corps of Guides.
- 1899—DOUGLAS, Capt. J. A., 2nd Bengal Lancers.
MIHR DIN, Naik, Bengal Sappers and Miners.
- 1900—WINGATE, Capt. A. W. S., 14th Bengal Lancers.
GURDIT SINGH, Havildar, 45th Sikhs.
- 1901—BURTON, Major E. B., 17th Bengal Lancers.
SUNDAR SINGH, Colour Havildar, 31st Burma Infantry
- 1902—RAY, Capt. M. R. E., 7th Rajput Infantry.
TILBIR BHANDARI, Havildar, 9th Gurkha Rifles,
- 1903—MANIFOLD, Lieut.-Col. C. C., I.M.S.
GHULAM HUSSAIN, Lance-Dafadar, Q. O. Corps of Guides.
- 1904—FRASER, Capt. L. D., R.G.A.
MOGHAL BAZ, Dafadar, Q. O. Corps of Guides.
- 1905—RENNICK, Major F., 40th Pathans (specially awarded a gold medal).
MADHO RAM, Havildar, 8th Gurkha Rifles.
- 1906—SHAHZADA AHMAD MIR, Risaldar, 36th Jacob's Horse.
GHAFUR SHAH, Lance-Naik, Q. O. Corps of Guides Infantry.
- 1907—NANGLE, Capt. M. C., 92nd Punjabis.
SHEIKH USMAN, Havildar, 103rd Maharatta Light Infantry.
- 1908—GIBBON, Capt. C. M., Royal Irish Fusiliers.
MALANG, Havildar, 56th Punjabi Rifles.
- 1909—MUHAMMAD RAZA, Havildar, 106th Pioneers.
- 1910—SYKES, Major P. M., C.M.G., late 2nd Dragoon Guards (specially awarded a gold medal).
TURNER, Capt. F. G., R.E.
KHAN BAHADUR SHER JUNG, Survey of India.
- 1911—LEACHMAN, Capt. G. E., The Royal Sussex Regiment.
GURMUKH SINGH, Jemadar, 93rd Burma Infantry.
- 1912—PRITCHARD, Capt. B.E.A., 83rd Wallajahbad Light Infantry (specially awarded a gold medal).
WILSON, Lieut. A. T., C.M.G., 32nd Sikh Pioneers.
MOHIBULLA, Lance-Dafadar, Q. V. O. Corps of Guides,
- 1913—ABBAY, Capt. B. N., 27th Light Cavalry.
SIRDAR KHAN, Sowar, 39th (K.G.O.) Central India Horse.
WARATONG, Havildar, Burma Military Police (specially awarded a silver medal).
- 1914—BAILEY, Capt. F. M., I. A. (Political Dept.)
MORSHHAD, Capt. H. T., R. E.,
HAIDAR ALI, Naik 106th Hazara Pioneers.

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1. The MacGregor Memorial Medal was founded in 1888 as a memorial to the late Major-General Sir Charles MacGregor. The medals are awarded for the best military reconnaissances or journeys of exploration of the year.

2. The following awards are made annually in the month of May:

(a) For officers—British or Indian—a silver medal.

(b) For soldiers—British or Indian—a silver medal, with Rs. 100 gratuity.

3. For specially valuable work a gold medal may be awarded in place of one of the silver medals, or in addition to the silver medals, whenever the administrators of the fund deem it desirable. Also the Council may award a special additional silver medal, without gratuity, to a soldier, for special good work.

4. The award of medals is made by His Excellency the Commander-in-Chief as Vice-Patron, and the Council of the United Service Institution, who were appointed administrators of the Fund by the MacGregor Memorial Committee.

5. Only officers and soldiers belonging to the Army in India (including those in civil employ) are eligible for the award of the medal. *

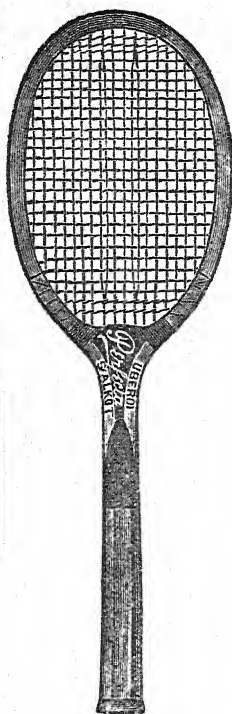
6. The medal may be worn in uniform by Indian soldiers on ceremonial parades, suspended round the neck by the ribbon issued with the medal.

Note.

(i) Personal risk to life during the reconnaissance or exploration is not a necessary qualification for the award of the medal; but in the event of two journeys being of equal value, the man who has run the greater risk will be considered to have the greater claim to the reward.

(ii) When the work of the year has either not been of sufficient value or has been received too late for consideration before the Council meeting, the medals may be awarded for any reconnaissance during previous years considered by His Excellency the Commander-in-Chief to deserve it.

* *N. B.*—The terms “officer” and “soldier” include those serving in the British and Indian armies and their reserves; also those serving in Auxiliary Forces, such as the Volunteers and Corps under Local Governments, such as Frontier Militia, Levies and Military Police, also all ranks serving in the Imperial Service Troops.



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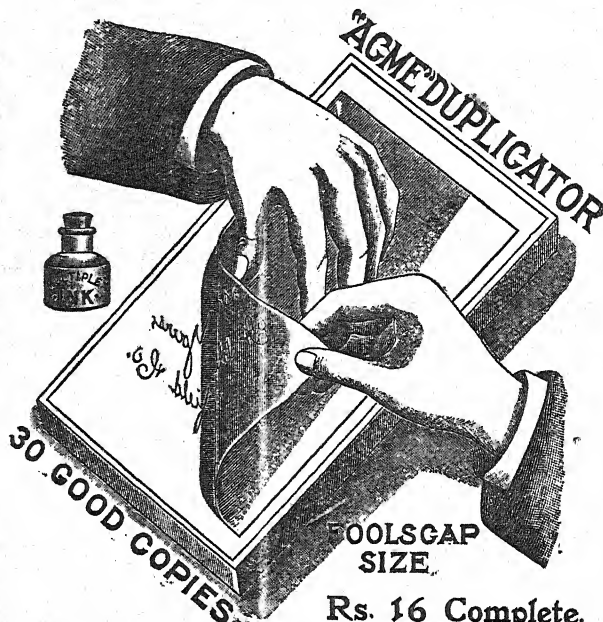
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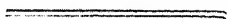
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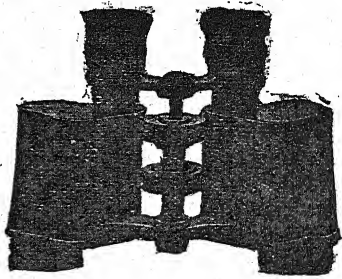
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Vol. XLIV.

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No. 199.

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BY MAJOR C. L. NORMAN, M. V. O., Q. V. O., CORPS OF GUIDES.

SUBJECT.—“The tactics of street fighting as applied to Eastern countries.”

The consideration of the most suitable tactics for street fighting in Eastern Countries would have been considerably simplified if the general principles of such fighting in any country had been laid down in our Field Service Regulations. As, however, these contain no mention of street fighting of any kind and the references to duties in aid of the civil power in the training manuals hardly come under this category, it will be necessary to consider the question from the very beginning. It is therefore proposed to examine the characteristics, firstly of eastern cities, and secondly of the opponents likely to be encountered in street fighting in those cities; then to consider briefly the circumstances under which such street fighting is likely to be undertaken; and finally to see how far the general principles of tactics, as laid down in Field Service Regulations, Part I, can be applied, and what modifications or additions are necessary.

Characteristics of the cities in eastern countries.

The term "eastern countries" is a very comprehensive one, and it is only natural in this country to draw deductions principally from India; reference will, however, be made to such other countries as is possible.

Type of city to be considered.

Moreover it is evident that in those portions of eastern cities where European influence has asserted itself sufficiently, as in the case of the main streets of Calcutta and Bombay, the oriental characteristics have so far disappeared that fighting in such a neighbourhood can no longer be regarded as being primarily carried on under eastern conditions. It is therefore proposed to consider the characteristics of an essentially eastern type of city which will also include those portions of large towns which have not been modelled on European lines. Well laid out cantonments with wide roads and large compounds, and the small, flimsily built native villages have not been considered as they do not necessitate real street fighting; the former are too open and the latter can be dealt with from outside.

The task of considering these distinctive features is greatly facilitated by a study of the scene of the most strenuous street fighting in which our troops have been engaged in the East, that is to say Delhi, where

Distinguishing characteristics.

such fighting was practically continuous from the time of the assault in the early hours of September 14th 1857, till the 20th when the city and palace were at last in our possession. An account of Delhi* brings out the following points which deserve special attention as affecting the tactics of disciplined troops fighting in the streets. These are also to be found in western cities, but only to a minor extent, and consequently their influence is far more pronounced in the east.

(a) The want of adequate open spaces where troops can act with comparative freedom or Lack of open spaces. which can be used as forming up places or for reforming columns which have

* "Richard Baird Smith" by Col. Vibart, p. 26—28.

become disorganized. Even such spaces as do exist, are usually commanded by the houses bordering them and encumbered by trees; but, in spite of these disadvantages, they are undoubtedly points of considerable importance when contrasted with the remainder of the city.

(b) The existence of certain dominating or exceptionally strong positions within the city, the possession of which affords special facilities for defence against the enemy or for use as a base for a further advance.

Such points are to be found in mosques or houses which from their situation on higher ground, or by reason of their being more strongly built, or even owing to their being only one story higher than the surrounding houses, offer a commanding situation over the neighbourhood. A striking instance of the advantage afforded by an extra story is to be found in the case of Johanne's house at the siege of Lucknow,* the only one in the immediate neighbourhood of the position, of which the upper story had not been destroyed before the siege. From it the rebel sharpshooters were able to deliver such a deadly fire that it became necessary for the defenders to mine the house and blow it up. It is essential to recognise and utilize these dominating points.

(c) The streets and lanes are so narrow that any advance up them must be on a very restricted front and no space is afforded on which troops can form. This prevents the employment of large bodies of troops and necessitates the use of small, compact columns.

(d) Nearly all the streets and lanes, besides being narrow, are crooked and winding; while many of the latter are in addition barred by heavy gates of wood often strengthened with iron. Not only is it very difficult for columns to keep to the required direction; but, in such localities, action in force is hardly practicable and disciplined troops are reduced to isolated bodies of irregular combatants.

* History of the Indian Mutiny, by Holmes, p 277.

(e) The houses frequently overhang and command the street. This exposes it to a deadly fire
 Overhanging houses. from the occupants of the buildings, as was the case in the sortie from the Pekin Legations on July 1st,* and may necessitate leaving the street and working through the houses.

(f) Though some of the the houses are flimsily built, many of them are of exceedingly strong
 Strength of the houses. masonry and enable their defenders to offer a determined resistance. Such were the Sikandar Bagh and Shah Najif mosques at Lucknow, the latter of which was so strong that the guns had no effect on it.† Such houses demand the use of explosives, tools and artillery.

In addition to these characteristics brought out in the above quoted account of Delhi there are two others deserving of attention. These are :

(g) The roofs of the houses are usually flat and, if adjacent houses are of approximately the same height, afford a safer line of advance for the leading troops than the
 Flat roofs. street, in that they are not commanded by the houses.

(h) The stair cases of the houses are exceedingly narrow and usually twisting. As a rule only one man can advance up them at a time and even he is often impeded from effectively using his weapons; so a party entering a house in the lower stories may be held up by a single enemy who can escape by the roof. This difficulty is obviated by an advance along the roofs or by sapping through the upper stories.
 Narrow and winding stairs,

Characteristics of the opponents likely to be encountered.

It is of course possible that the enemy will be to a certain extent disciplined and well armed;
 Lack of organization and discipline. but it is a fair assumption that organized troops will be superior in both

* China and the Allies, Vol. II p 99.

†History of the Indian Mutiny by Holmes, p 409 and 411.

these respects. Generally speaking the opponents will consist principally of a more or less well armed rabble, fired by religious enthusiasm and held together by a nucleus of organized men. Only in rare cases, such as the occupation of Kabul, will the enemy possess artillery or the more modern appliances of war; bombs thrown from the roofs of houses are increasingly likely to be used.

One characteristic, essentially common to all such opponents, is their susceptibility to moral influences and to resolute conduct and a determined course of action. Any indecision or pause in the operations is interpreted as weakness, and infuses them with greatly increased courage. Hence the offensive is not only the best, but usually the safest, course to adopt; and when once the troops have been set in motion there should be no cessation of the initiative. Though promptitude of action is most desirable, it is often better to delay the start a little than to have a check in the middle of the operations.

A similar trait is their frequent failure to follow up a success or take advantage of an opportunity. Early on June 22nd owing to the mistaken retirement of the international troops, the Legations were at the mercy of the Chinese who failed to profit by the chance, and the vacated positions were safely reoccupied.* They also often lack determination to push an attack right home even when victory is practically within their grasp.†

Circumstances under which such fighting is likely to take place.

The circumstances under which troops are likely to be engaged in this class of fighting, may be divided into three. (1) Against a more or less organized enemy either in dealing with mutineers who have occupied a city, as was the case at Delhi in 1857 after the assault; or during the occupation of a country, as for instance in Kabul, (2) Against

*The siege of the Peking Legations, Allen, p 120-1

†China and the Allies, Vol II, p 168.

comparatively speaking unorganized opponents, as in the event of serious riots. (3) In the case of a small body of troops attacked by greatly superior numbers and having to hold out until relieved. The first of these cases is the one that deserves careful consideration for it is the most probable and the points brought out will be equally applicable to the second which is really a minor edition of the first; in both these cases the offensive will be the normal attitude for the troops. The third case necessarily involves the defensive which should not be adopted against eastern nations unless absolutely unavoidable, and will then partake more of the nature of a siege; it therefore hardly comes within the scope of this paper, but will be briefly dealt with after the others have been discussed.

Composition of the columns.

The actual tactics which will best suit these circumstances may now be considered, and the first point to be dealt with is the composition of the columns. Although the local conditions may vary somewhat, it has been shown that owing to the narrowness of the streets action in force is as a rule impracticable; in such confined spaces only the leading troops of a column can be usefully employed, while those in rear may, in the case of a large one, become an actual hindrance by blocking the street and preventing ammunition or reinforcements from being brought up. In fact the troops in the rear may be exposed to severe fire without being able to reply to it or assist in the attack.

Although each column must be small and compact, at the same time it must be of sufficient strength to be self-supporting; not only must it be capable of holding its own if attacked in force by the enemy, but, if possible, of still making headway, even though slowly. At the assault of Delhi the four columns which were afterwards fighting in the streets, exclusive of the Kashmir detachment, averaged 915 men each; while the Reserve Column was 1,300 strong

and in addition was subsequently reinforced by 200 men detailed to cover the advance in the first instance.* Probably about 950 men will be all that can usefully be employed with a fighting column under ordinary circumstances. This would allow of its being composed of a complete battalion with some Sappers or Pioneers and such guns as might be necessary. A column used as a reserve might with advantage be half as strong again.

As the number of men that can be employed with each column is thus restricted, it will be necessary to have more than one column in order to utilize the maximum strength possible; the exact number of columns being of course dependent on the force available and local conditions. Moreover the moral effect on Orientals of the advance of several columns is undoubted; and they can mutually support each other.

These small columns must be self-contained and composed as far as possible of complete units, not of detachments. † Unless

Cavalry. circumstances are exceptionally favourable, horses and animals are as a general rule out of place in this form of fighting; though if there are any open spaces within the city, a few cavalry may have a great moral effect. The undesirability of the presence of animals with columns was instanced in the attack on the Sikandar Bagh at the Relief of Lucknow when the cavalry, jammed in a narrow lane, prevented the infantry and artillery from advancing; and later on at the Shah Najif where the animals carrying the ammunition became a nuisance. ‡

It will usually be impossible to employ field and heavy artillery with the columns owing to want of space, but on those occasions when there is room to bring even a single gun into action, its effect is very great, as in the case of those

*History of the Indian Mutiny, Malleon, Vol II. p 29.

†F.S. R. I. p 168. Cavalry.

‡History of the Indian Mutiny, Holmes, p 409-411.

with the Americans at the relief of the Pekin Legations.* Their possible use from a position outside the city will be discussed later. If the locality allows, a section, or even a sub-section of Mountain Artillery. Mountain artillery will be extremely useful; and to reduce the number of mules it might be advisable to bring the guns forward by hand draught. It is interesting to note that at Delhi on September 15th 2 field guns and 2 light mortars were attached to each column in case of its being necessary to use artillery to dislodge the enemy; and that each mortar was mounted on a platform cart.† Evidently the street fighting of the previous day had shown the need for artillery with the columns.

The brunt of the fighting will fall on the infantry, and that arm will in consequence furnish the main portion of the column, being detailed by battalions. A proportion of engineers or sappers and miners will be necessary to blow down walls, improve communications, and put into a state of defence any place which it becomes desirable to hold. If neither of these are available, a company of pioneers would be detailed in their stead; and in some cases it might be desirable to have the company in addition to the engineers.

The capacity of machine guns for delivering a heavy volume of fire from a narrow front renders them especially valuable in this class of fighting, particularly for sweeping a street and in holding on to a position on which the enemy are making a counter attack. The French at the relief of Pekin are reported to have killed 200 Boxers in one spot with a machine gun.‡ By carefully selecting positions for them on the roofs of houses or in suitable angles of streets it will

*China and the Allies Vol II, p 197.

†Private account of the Siege of Delhi.

‡China and the Allies, Vol II. p 223.

often be possible to obtain covering fire for an advance which could not be effected by the few men who could get into the small space occupied by a machine gun.

Tools and explosives will of course be required for the same purposes for which engineers or pioneers are needed; while sandbags and other requisites for rapidly putting a captured position into a state of defence will also be necessary. The need for sandbags in such fighting is amply shown in the siege of the Pekin Legations.* At the same time as the column must not be overburdened with animals or men carrying these materials, they must be kept well back in it or, if even this is undesirable, follow it under a suitable escort so as to be readily available when required.

Employment of fighting troops other than with columns.

Although cavalry will rarely be required with the columns, it can usually be effectively

Cavalry. employed to assist them; accompanied by horse artillery, it will be pushed round the city to give timely warning of the approach of hostile reinforcements and prevent or delay their arrival, and also to take up the pursuit when the enemy are driven out of it. The moral effect on Orientals of knowing that the cavalry has thus got in rear of them will be useful.

It will often be possible to find a position outside the city from which field or heavy artillery

Artillery. can deliver a covering fire, as from the Ridge at Delhi; and this will materially assist the columns. It will however demand a good system of intercommunication so that the supporting artillery may know where to direct their fire in order to afford the most effective assistance to the columns.

Formation of the Columns.

The actual formation of each column will vary according to circumstances. As a rule fighting will be on a narrow front, and at too short ranges to allow of an

Suggested formation
under normal circumstances.

*Siege of the Pekin Legations, Allen, pp. 120 and 143.

advanced guard; but scouts will, whenever possible, be pushed out from the head of the column which must be composed of infantry as it will have to bear the brunt of the fighting. Behind this leading body of infantry will follow a detachment of engineers with sufficient explosives and tools for immediate use; and then will come a support composed of infantry with the machine or mountain guns, unless conditions admit of the latter being pushed further up. The main body of the infantry of which a portion will be told off as a reserve, will come next, followed by the transport under a small escort which will also protect the rear of the column. The duty of making good the side streets and protecting the flanks must be allotted to a definite body of troops; if the leading body of infantry can not furnish parties for this purpose, they must come from the support. It will usually be advisable for bayonets to be fixed throughout the column.

Orders and control of operations.

It will be extremely difficult for the supreme commander to exercise effective control over the columns once they have become engaged with the enemy, though this will be facilitated by the organization of an efficient system of inter-communication. It is essential that the columns should be launched on a definite plan by means of carefully framed orders, and then it will be necessary to rely largely on the initiative and energy of column commanders. A map issued to each column commander, showing clearly the operations entrusted to him and to the other leaders, similar to those issued before the fighting at Delhi,* will be of the greatest assistance to all commanders.

The actual tactics to be employed.

As already shown the offensive should be adopted, whenever possible, against oriental nations; and this offensive should not be interrupted, for any pause will unduly encourage the

* Kaye Vol. II. p. 581.

enemy and render a subsequent advance more difficult. At Delhi it was found necessary to adopt "a cautious and systematic advance";* but it is perhaps preferable to substitute "a steady and systematic advance". Bold, resolute action always produces a great impression on eastern minds; and even if this is not possible perhaps a slow, but essentially persistent, advance with every small success promptly followed up will have a great moral effect.

If it becomes impossible to continue this advance along the open streets, it will be necessary to work along the roofs or through the houses; the latter entails sapping through from house to house and renders progress slower, but is often the surest method.† The Lahore Bastion was taken in this manner when a direct attack had failed.‡ Small parties on the roofs of the houses can also assist the main advance up the street by covering fire.

It is essential that any important position once gained should be held on to and if necessary strengthened against counter attack; any withdrawal will not only encourage the enemy, but the lost position can usually only be recaptured at the cost of valuable lives and after considerable efforts. The failure of Jones' column to seize and hold the Lahore Bastion at Delhi on September 14th caused a delay of 5 days in its capture and the death of Nicholson and many others.§ The tenacious manner in which the Russians at the relief of Peking, unable to advance and exposed to a heavy fire which it was impossible to return, clung to their position on the city wall till relieved is an example to follow.||

* Richard Baird Smith, p. 62.

† History of the Indian Mutiny, Holmes p. 382.

‡ Kaye Vol. III. p. 626-7.

§ Kaye, Vol. III, p. 632, Holmes, p. 376.

|| China and the Allies, Vol. II, 178

der the orders of Commander-in-Chief, this will usually consist of a separate column, as at the assault of Delhi, following in rear of the fighting columns along a central street. From this reinforcements can be sent to any of the columns, or else the whole of it can be thrown into the fight at some decisive point or used to deal with any unforeseen situation.

The columns themselves will be fighting at such close quarters and in such difficult terrain that

Pursuit.

an actual pursuit on their part will usually be impossible. Such action will normally take the form of pushing forward as rapidly as possible and preventing their opponents making a fresh stand further on. If the enemy is driven out of the city or attempts to escape from it, the cavalry and horse artillery held in readiness outside must take up the pursuit and push it with vigour.

The necessity for maintaining communication between the different portions of a force is always of urgent importance,* and if anything

Intercommunication. this is increased in street fighting were it is impossible to see what is going on in other parts of the field of operations; without it mutual co-operation is impossible. The system of communication must be carefully organized previous to the operations according to local conditions and the means available; pack wireless, telephones, visual signalling and orderlies being the most suitable. If the maps of the city with which each column commander is provided,† are ruled into squares with numbers and letters, it will be easy for him to report his exact position and progress. In very exceptional circumstances and as a last resort air craft might be utilized for dropping messages.

Reconnaissance has hitherto been a difficulty, but now Reconnaissance. aeroplanes will afford great assistance by flying over the city and discovering not

only the enemy's dispositions but also any topographical information, such as the lie of the streets and any points

*F. S. R., I. Chap. II, 8 (1).

†Vide page 170.

of special tactical importance. Such aerial reconnaissances should present little difficulty as the enemy are not likely to possess any anti-air craft armament and the starting point and landing place can be established in some secure spot outside the city where a repairing depot could be arranged for. There can be no doubt of the moral effect of such reconnaissances on an eastern population, which would be increased by dropping bombs into the city during their execution. The following describes the tactical reconnaissance adopted during the street fighting at Delhi, which is still applicable.* The line of streets to be occupied having been selected, 2 or 3 intelligence officers with small covering parties of 10 or 12 men were pushed forward to reconnoitre and select the houses best suited to be occupied and held by the column. Officers were instructed that they were not sent out for the purpose of fighting, but were carefully to avoid it. If no enemy was near and the officer thought that his small party could hold the post, he was to occupy it and, if necessary, ask for support from his column.

Administration and Discipline.

Though not exactly tactics, some administrative points which affect them, must be briefly considered. In the event of prolonged fighting the normal procedure for the supply of ammunition will probably prove unsuitable owing to the difficulty of bringing up animals; definite arrangements for its adequate supply must be thought out in accordance with local conditions. These may take the form of issuing an extra 50 rounds per man; substituting men as carriers for the 1st Line ammunition mules; and replenishing the section or regimental reserve by means of carriers or mules. Full advantage should be taken of the hours of darkness to bring up sufficient ammunition for the next days requirements.

Field ambulances will only be encumbrances with a column and medical arrangements must be confined to those necessary for get-

*Private account of the seige of Delhi.

ting the wounded away from it and so leaving it free to perform its duties unhampered. Ordinarily this will be amply provided for by the medical officers and bearers of the units which form it, reinforced if necessary by bearers from a field ambulance who can be temporarily attached. Dressing stations will be established in suitable localities behind the columns. As however it is undesirable to have any in the city who are not efficient combatants, all sick and wounded should be evacuated as soon as possible; this will almost certainly have to be done by dhoolies and bearers. In the case of continued fighting sanitation and the removal of the dead of both sides must receive attention.

As animals are out of place with the columns, transport must be reduced to a minimum; or-
 Supply and Transport. dinarily the first line transport of units will be amply sufficient, and even this will have to be kept out of the way and sheltered from fire. Each man will carry the unconsumed portion of the current day's ration and an emergency ration, and this should be all that is actually required with the column. As the latter must be kept as a reserve, it will be necessary to push up one day's supplies to the column daily; this will be best effected in the evening under cover of dusk, when the rations for one day carried on mules in 2nd Line Transport can be brought up, the rations issued, and the mules sent back out of the danger zone.

Though primarily a question of discipline, one other point must be mentioned; as already
 Plundering to be guarded against. shown it is essential to prevent straggling and the chief incentive to this will be plunder. Nor is straggling the only evil arising from looting, for the men get out of hand, discipline breaks down, and if drink is among the plunder the troops may become incapable of resisting the enemy, as was the case at Delhi.* Men must be warned beforehand that any one caught looting will be severely dealt with; and any liquor

* Kaye, Vol. III. p. 621.

which can not be removed and stored, should be instantly destroyed;* for it must be remembered that any relaxation of discipline is abandoning the chief advantage which the regular troops possess.

Street fighting against an unorganized enemy.

In the event of the employment of regular troops in the streets of a city against an unorganized enemy, such as rioters, the general principles already discussed will also apply. But in such fighting elaborate organization is not nearly so necessary, while it is permissible to take more risks; such opponents are likely to fight in mobs and the greatest danger to be apprehended from them is fanaticism which is best checked by bold determined action†, so as to give it no time to spread. It is therefore essential for the troops, while taking all reasonable precautions, to push resolutely on and keep the initiative in their own hands. Against such opponents cavalry will often be far more useful than in the case of a more organized enemy, as the moral effect of mounted troops on mobs is undoubted and they can be most successfully employed in charging and dispersing crowds.

Defensive action.

It only remains to consider defensive action; and, as has already been pointed out, except to hold on to a position which has been gained, till assistance can arrive or to resist a counter-attack, the defensive has no real place in street fighting. Both these cases have already been discussed, and even in them the defensive is a purely temporary attitude. Only troops attacked by greatly superior numbers should act entirely on the defensive; and then it will be a case of siege and not of street fighting; this hardly comes within the scope of this essay, though many of the principles are similar to those discussed.

* Address to the Army before Delhi. Kaye, Vol. II, p. 555.

† The Cawnpore riots last year.

Conclusion.

In conclusion it must be remembered that with the Oriental especially nothing succeeds like success. A vigorous and determined offensive not only yields the best results, but is usually the safest course; if the defensive is temporarily unavoidable, it should be as active as possible and the offensive resumed at the first opportunity; the purely passive defensive is almost always fatal. Skobelev's maxim, "Do not forget that in Asia he is the master who seizes the people pitilessly by the throat and imposes on their imagination", is still true to-day. Bold, resolute action will have the greatest moral effect and prevent those who are hesitating, from joining the enemy; while mutual co-operation between the columns will prevent any one of them from being attacked in force. Careful organization of the columns; a definite task allotted to each of them; and then a steady advance, making good every point gained and following up every success, will offer the surest hope of victory. "The general plan now proposed is the gradual seizure of a series of positions, each in advance of the other, with a good communication along the front, and such number of posts, each held in strength as may be necessary, to secure the communications both along the front and to the rear."*

* Order issued during the street fighting at Delhi from a private account.

Some Experiences of Indian Cavalry in Frontier Warfare.

BY

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In this lecture I propose to give a narrative account of the Guides Cavalry on active service in the 1895 and 1897 North West Frontier Expeditions together with some remarks on tactical and other points of interest to the cavalry arm which these experiences appear to me to illustrate.

In 1895 the Guides cavalry had a squadron attached to each of the three brigades forming the expeditionary relief force. The day after the storming of the Malakand, a squadron crossed the Rass and arrived the same evening just before dark in the Swat valley, where, judging from the very large number of the tribesmen that covered the hill tops, hostile developments appeared to be imminent.

At the time the cavalry arrived on the scene the enemy were being held off by the 37th Dogras, forming the advance guard of the brigade, which with its supplies was on its way to encamp in the open valley near a village called Khar. Whilst the Dogras were being somewhat pressed, owing to ammunition running short, half a squadron had a chance of surprising and charging the enemy over favourable ground. There were 3 or 4 nullahs to cross, but they presented no serious obstacle to the cavalry though they afforded considerable assistance to the tribesmen, as channels of escape from the full effect of a cavalry charge. Some good execution was done and the moral effect on the tribesmen who were spectators on the hill side was evident, for their numbers melted away with astonishing rapidity immediately after the charge and the fact that not a single shot was fired into our camp that night was still further evidence of their temporary demoralisation.

The experiences of this charge afforded a striking illustration of the superior merits of pointing, as opposed to cutting. Nearly all the injuries inflicted by the enemy consisted of cuts on the noses and flanks of the horses, and on the legs of the sowars. This was due to some extent to our men attempting to ride over the enemy and cutting instead of pointing. The Swati being then extremely fanatical, never hesitated to attack a mounted man, when overtaken and brought to bay, and proceeded to cut and slash at the latter for all he was worth, even when cut about and knocked down himself.

When cavalry is pursuing a panic stricken enemy who makes scarcely any attempt at resistance, it makes no perceptible difference whether cutting or pointing is adopted as the means of inflicting casualties, but with a resolute enemy on foot who faces and is quite prepared to take on his mounted adversary, as in my experience was the case with most of the tribesmen, there can be no doubt that the point is by far the most effective way to use the sword, for the reason that you can reach your adversary further away from your leg, and at the same time the effort of running a man through is small compared with that of cutting through skull or body.

Following the same line of reasoning, a lance which gives a still further reach is a still more effective weapon when charging and the moral effect of it is undoubtedly greater.

The superior effectiveness of the point, presumably as demonstrated by practical experience, is evidently recognised in our Cavalry Training which now lays down that only the point is of value as a hit. In view of this it seems somewhat illogical that cutting exercises should still be carried out in the special Training Manual for Indian cavalry. The reason for this is of course due to the Indian cavalry still continuing to cling to the curved sword, the idea being that the Indian sowar has been accustomed to this weapon from time immemorial, and is consequently incapable of using the straight sword to advantage. Al-

though the first part of this proposition cannot be denied, there yet appears to be no valid reason for the inference that a sowar cannot equally be well trained to employ the point with a straight sword. He is just as capable of being taught to do so as the infantry man is taught to use the point with the fixed bayonet, and it would therefore seem sound to gradually arm sabre regiments with the straight sword.

Some few days after the crossing of the Malakand the 11th Lancers and one of the Guides squadrons forded the river Swat at Chakdara and pursued the enemy who were defending the passage as far as Uch, a village some 5 miles from Chakdara. Some pursued as far as Katgala pass, a distance of 7 miles, in pursuit of some of the enemy's horsemen. These however finding themselves overtaken left their horses and made off up the hill side. Owing to the enemy having time to escape to the hills, whilst the fording of the river was taking place, no very great execution was done by the lance itself. A squadron of the Guides was in support and their bag with the sabre was *nil*, though they accounted for a few on the hill side by rifle fire. The valley however was cleared and opposition ceased.

The next chance the cavalry hoped to have, was after passing the Panjkora, but here though apparently the ground was good, in reality it was quite unsuitable for cavalry action, being cut up by deep nullahs. Consequently no charge was made, though all the 11th Lancers and one of the Guides squadrons were present.

The method by which a cavalry charge should be carried out against these tribesmen is a point of considerable interest for which there is no legislation in our regulations. The formation I should personally be inclined to adopt is that of having two or more extended lines at 150 to 200 yards distance.

In this way I feel sure more execution would result, for each man could more easily single out his opponent, and the moral support of the rear line would be great

and very perplexing, if not terrifying to flying tribesmen. The rear line would also deal with those who had evaded the first line, and also assist any of its wounded, who cannot be left to the mercy of a treacherous and cruel enemy. The experience of myself and others as regards cavalry charging tribesmen is, that the men get into groups and after knocking over a man, stop, and even dismount to polish him off.

The Guides cavalry were afterwards used on the lines of communication and latterly concentrated at Mundah where a halt was made for several weeks. Sniping took place every night. Very little damage was done notwithstanding that, most of the time, no entrenchments of any sort were constructed.

On the night of the 26th—27th July 1897, when the Malakand was suddenly and unexpectedly attacked, the C. O. at Mardan received a telegram about 9 o'clock in the evening asking for help. The cavalry got off about midnight, arriving at the Malakand, 32 miles off, about 6 a.m. The heat was intense and the dust horrible. The fact that 19 men of the 35th Sikhs died of heat apoplexy, on the way from Mardan to Dargai at the foot of the Malakand 25 miles off, on the 30th gives an idea of what it was like.

Our experiences of the night attack in the Malakand did not throw much light on the question of the best means of controlling fire and expending ammunition by night. The waste of ammunition caused by men elevating instead of depressing the barrels of their rifles in their endeavour to expose themselves as little as possible above the breastwork was very noticeable on this occasion, as was also the success of the enemy in keeping the nerves of the garrison in a constant state of tension by beating dhols, shouting, yelling and making fanatical rushes from time to time.

The main object of the tribesmen seemed to be to draw our fire as much as possible, in which they certainly succeeded, for a constant stream of bullets was directed on them all night. In the absence of any means for lighting

up the ground over which the enemy must charge, it is difficult to see under similar circumstances how a wasteful expenditure of ammunition can be controlled by night, for though it does little damage to the enemy, it undoubtedly serves the purpose of preventing the camp being rushed.

On the 1st August, the Guides cavalry and the 11th Lancers were despatched with extra rounds to make a dash for Chakdara a distance of 9 miles which was hard pressed owing to lack of ammunition. Scarcely a mile had been covered when the enemy rose from cover behind rocks like rabbits from their burrows, and there was no means of getting round them, the ground being rocky on both sides of the road and quite impossible for cavalry. This rocky cover enabled them to approach the cavalry very closely while presenting a very difficult target to the latter. Finding it impossible to achieve anything the cavalry accordingly retraced their steps, suffering a loss of 17 men killed and wounded and of five horses killed and 22 wounded. Chakdara was relieved the following day with the aid of infantry reinforcements.

The action at Landakai, which was in the main an infantry engagement, took place shortly afterwards. In this affair the enemy's feeble resistance was doubtless greatly due to the turning movement of the cavalry, which cost them however, two British officers killed and one severely wounded and other casualties of men and horses.

The severe casualties sustained by cavalry when the ground was difficult and offered considerable shelter to the man on foot were chiefly due to the imperative necessity of re-cuing the wounded from an uncivilized enemy such as these tribesmen.

The execution of this duty demands rapid and cool handling in order that a large number of additional and unnecessary casualties may be avoided. The method of dealing with such situations in the best and promptest manner might with advantage be practised in peace time.

Nothing further of interest occurred until Inayat Killa was reached, near which a series of skirmishes took place

with the Mohmand tribe who were supported by Afghans, and every day the foraging parties were persistently harassed while returning towards camp.

The biggest fight was perhaps the one that took place in the villages of Agra and Ghat. Cavalry co-operation with infantry was excellent on that occasion and the protection they afforded on the flank contributed greatly to the reducing of casualties among the infantry besides materially facilitating their retirement. An incident of the retirement was the clearing of a village on the edge of a nullah, into which the enemy were pouring with a view to bringing enfilade fire to bear on our infantry. The spirited cavalry charge towards the village stopped by terraced fields, was sufficient to prevent the enemy carrying out their intention and to cause their hasty withdrawal from the village.

Winston Churchill writes in his book a spirited account of these fights in the Mohmand valley in which he partook as a subaltern.

"The task which is usually confided to cavalry in these mountain actions is to protect one of the flanks. The ground hardly ever admits of charging in any formation, and it is necessary for the men to use their carbines. On the 30th September the cavalry were so employed. On the left of the hostile position was a wide valley full of scrubby trees and stone walls, and occupied by large numbers of the enemy. Had these tribesmen been able to debouch from this valley, they would have fallen on the flank of the brigade and the situation would have become one of danger. For five hours two weak squadrons of the Guides cavalry were sufficient to hold them in check. The methods they employed are worth noticing—Little groups of 6 or 7 men were dismounted, and these with their carbines replied to the enemy's fire. Other little groups of mounted men, remained concealed in nullahs or hollows, or behind obstacles. Whenever the enemy tried to rush one of the dismounted parties and to do so advanced from the bad ground, the supporting patrols galloped forward and

chased them back to cover. The terror that these tribesmen have of cavalry, is out of keeping with their general character.

It was a beautiful display of cavalry tactics in this kind of warfare, and, considering the enormous numbers of the enemy, who were thus kept from participating in the main action, it demonstrated the power and value of the mounted arm with convincing force.

On the 6th of October, I witnessed some very similar work, though on a smaller scale. A squadron was engaged in covering the operations of a foraging party; a line of patrols moving rapidly forward presented a difficult target to the enemy's sharpshooters. I found the remainder of the squadron dismounted, in rear of a large bank of stones. Twenty sowars with their carbines were engaged in firing at the enemy, who had occupied a morcha—a small stone fort—some 300 yards away. Desultory skirmishing continued for some time, shots being fired from the hills which were half a mile away, as well as from the morcha. Bullets kept falling near the bank, but the cover it afforded was good and no one was hurt. At length word was brought that the foraging was finished and that the squadron was to retire under cover of the infantry. Now came a moment of some excitement. The officer in command knew well that the instant his men were mounted they would be fired at from every point that the enemy held. He ordered the first troop to mount, and the second to cover the retirement. The men scrambled into their saddles, and spreading out into an extended line cantered away towards a hollow about 300 yards distant. Immediately there was an outburst of firing. The dust rose in spurts near the horsemen and the bullets whistled about their ears. No one however was hit. Meanwhile the remaining troop had been keeping up a rapid fire on the enemy to cover their retirement. It now became their turn to go. Firing a parting volley the men ran to their horses, mounted, and followed the first troop at a hand gallop, extending into a long line as they did so. Again the enemy opened fire and again the dusty ground showed that the bullets

were well directed. Again, however, nobody was hurt, and the sowars reached the hollow laughing and talking in high glee. The morning skirmish had, however, cost the squadron a man and a horse, both severely wounded."

In our entrenched camp at Inayat Killa sniping at night was pretty regular. The troops used to dig themselves in while horses were partially protected by mud walls, built up at the end of each row. Bhusa bales were also made into walls to catch bullets. In the Mohmand expedition of 1908 cavalry and transport were frequently placed in nullahs for better protection at night. Stampeding is another matter which should be carefully guarded against, and one of the best means to this end is to see that the head and heel ropes are in good order, and never allowed to get rotten.

The entry into Buner following on the withdrawal of the troops from the Swat valley was a walk over. All the passes into Buner were threatened by our troops, and the Pirsai pass over which the Guides cavalry and some of the 10th Lancers crossed was the last place by which the tribesmen expected their country to be entered. The Guides infantry and the 31st P. I. took the pass with scarcely any opposition and were followed by the Guides cavalry and the 10th Lancers. During the actual crossing of the pass the cavalry were obliged to dismount and lead their horses and no loaded transport could be taken.

In consequence of this progress was very slow, and at nightfall the cavalry were forced to bivouac in a gorge, half way down the mountain side, where protection was necessarily somewhat left to chance, as proper piquetting was out of the question.

It was freezing cold in the month of January, and fires had to be kept up all night, as horses had but one blanket and men only their greatcoats.

In Buner there was no opposition. Cavalry roamed the country from end to end, but not a shot was fired in anger and the expedition began to assume the characteristics of the proverbial picnic, amid beautiful scenery, abundance of game and streams well stocked with mahseer.

As regards the tactical lessons to be derived from the campaign, it may be said that the principles of hill warfare against a semi-civilized enemy as laid down in our textbooks were strikingly confirmed. To push patrols as far forward as possible without risk of being cut off, to surround villages before entering them, to piquet heights when moving up a valley, and above all to make sure of your supplies before risking a forward movement, are all principles the soundness of which every frontier campaign to strengthen. In some cases it was found necessary to rush narrow passes without piquetting. This was done by sending men well ahead in single file at a distance of 20 yards between them and if all clear the squadron rushed rapidly through. This procedure saving much time and fatigue to the troops, undoubtedly involves considerable risk and should only be resorted to under exceptional circumstances.

A question much discussed is that concerning the respective merits of the waler and country bred on our North West Frontier. Speaking only from my own experience, walers are more affected by great heat than country breeds, moreover, the latter are quicker and handier across rough stony country, have more comfortable paces and keep in good condition with inferior and less food than the waler. All these points seem to favour their use on our frontier, where the work, I take it, will never be fast. Down country the climate seems to suit the waler better. There he is probably a more useful horse for Indian cavalry.

Shoeing requires much attention, an extra nail is absolutely necessary. It is advisable also to inspect all shoes after crossing boulder streams like the Swat and Panjkora rivers, as it is marvellous how many are cast through working loose during such crossings.

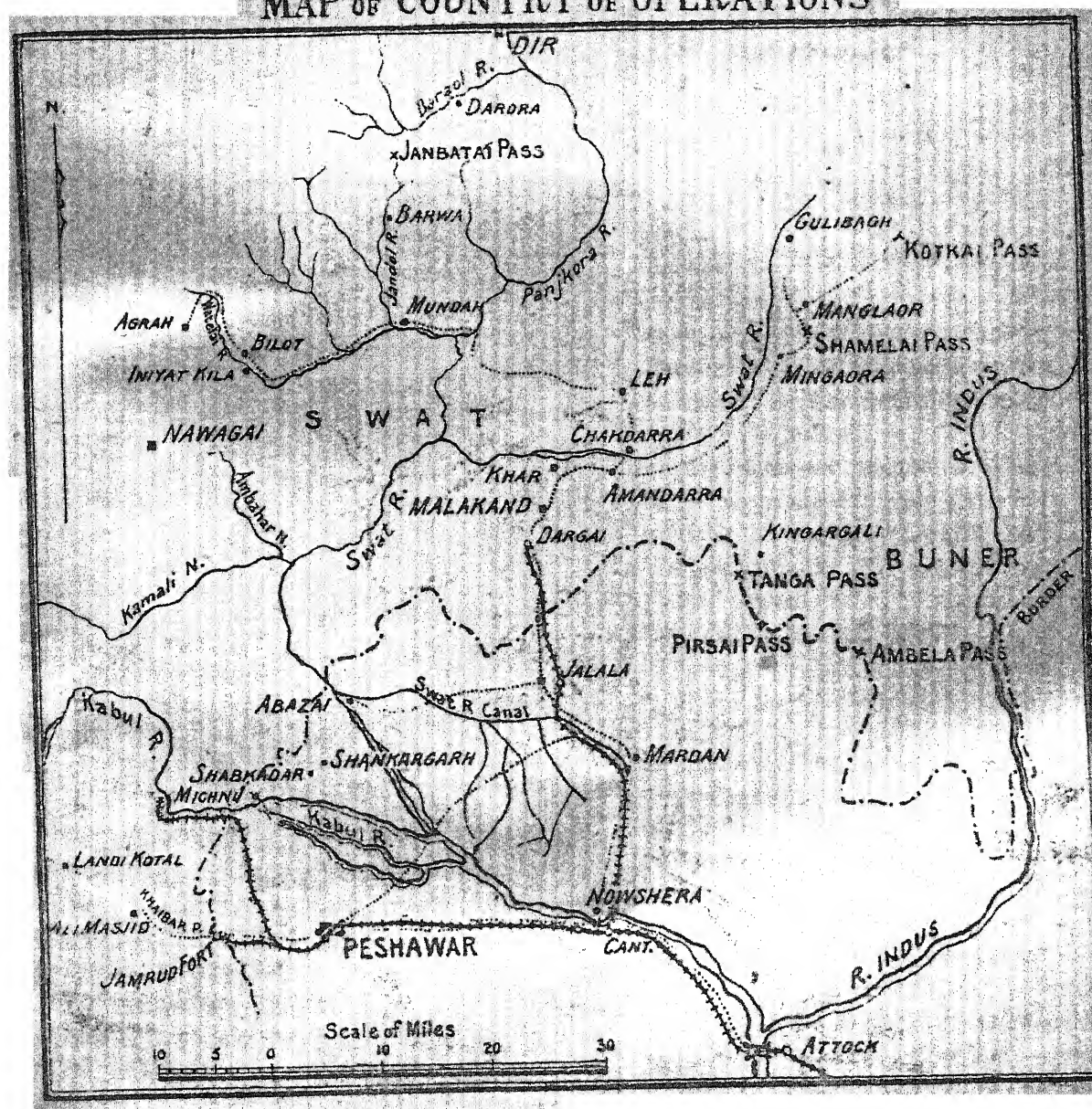
Cavalry operations by night would seem to be very rarely practicable. The problem of moving a mounted force by night involves far greater difficulties than is the case with infantry, and the risk is correspondingly greater. Night marches for cavalry on a small scale may however sometimes be useful. My only personal experience of a

successful night march by cavalry was at Kohat about the year 1889. On this occasion a famous outlaw called Moushki was surrounded and captured in his village in Jowakiland.

Circumstances may also conceivably arise when it would be advisable to shift a cavalry camp for some distance at nightfall in order to avoid losses from an enemy's fire at night. With the exception of minor operations of this nature, the employment of cavalry by night would appear to present no advantages commensurate with the risk entailed, for in the darkness a comparatively insignificant body could by their fire produce enormous havoc among cavalry, while the latter unable to charge or even clear away from this fire would be practically helpless and thrown into complete confusion.

In this lecture I have endeavoured to illustrate well known principles by the light of practical experience, rather than to advance any new or novel theories on the subject of hill warfare. These principles have not changed though the methods of carrying them out in practice vary from time to time. By going over old and familiar ground many important details are emphasised and brought back to mind which might otherwise escape attention or be entirely forgotten, and such illustrations from past campaigns may perhaps serve to impress tactical lessons in a more interesting form, than the bare enumeration of "tactical points to be observed", as laid down in text books.

MAP OF COUNTRY OF OPERATIONS



Notes on the North East Frontier.

BY

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Before dealing with the methods employed in some phases of Military Police column work on the Assam border, a brief account must be given of the conditions that prevail there.

CLIMATE.—The only similarity between the North West and North East Frontiers lies in their mountainous character,—climate, vegetation and tribes on the two borders are utterly unlike. During the winter months the weather is crisp, bright and invigorating, but Assam has a monsoon climate best described in terms of inches of rainfall and atmospheric saturation. Except in the districts opened out by the tea industry, dank vegetation, trees, parasitic creepers, shrubs and grasses cover plain, mountain and valley.

COMMUNICATIONS.—Through this choking mass of jungle big game runs, and an occasional track, are the only possible paths. Even through the lightest jungle, progress, dao in hand, is not always easy. As a rule touch cannot be kept, in the muffling depths of the under-growth, with a man twenty yards away. Hill paths are often crooked tunnels through the jungle on which it may only be possible to see a few yards ahead.

More often than not, they are bounded by a khud on one side and thick jungle, or the face of a cliff, on the other. Near the plains, the paths, ignoring all contours, rise inexorably and dive abruptly over spur after spur. Nor does the rotten formation, or red clay, of which the lower

ranges are composed, make marching any easier, especially in rain. On some paths, in bad weather, continuous step cutting is unavoidable.

There are two good hill roads, made by Military working parties. One of these is through the Dibang gorge. The other follows the right bank of the Dihang from Pasighat, through the Rotung Trade Post to Yembung, Sir Hamilton Bower's Headquarters during the Abor Expedition. To this point mules can be taken. A road is also being constructed up the Lohit Valley. But the natural paths are exceedingly narrow, switch-back up and down the sharpest of razor-edges and slither round rock faces with an uncomfortable drop below them. In compiling route reports in a country where the miles stand more or less on end, anything but a time scale, with the governing conditions clearly marked, is apt to be misleading.

Except when making forced marches, the main body (of the leading column, if the force is split up) should reach the site of the night's camp not later than 3 p.m., in winter. This gives good time to clear the site, build camp, and settle down before dark. It is a good plan to select the first suitable site after 2 p.m., unless of course there is some definite objective in view.

The paths improve as they go up the Dihang Valley and indeed, where the river is better known as the Tsanpo, the only bad paths are those leading to the passes into Tibet. In Pemakoichen the main routes on either bank are broad and follow the contours as far as possible. When a descent is unavoidable the road is carefully graded; and the tributaries of the main river are spanned by cantilever-bridges. Only across the Tsanpo itself do the Membas (Mumpas) throw tubular cane bridges.

All through the hills the different villages are responsible for the upkeep of definite bridges and sections of the road. But what a hill man considers easy, may prove an awkward place, on a wet day especially, for a European whose outfit includes a rucksack and a long khud stick, and who has slippery nails in his boots.

In the country between the Brahmaputra and the hills to the north, the rivers are the most convenient highway. In the hills themselves the rivers, especially in flood time, are a serious obstacle. The astonishing thing is that in a country of such torrential rain, stages could be found, even on high ridges, that are entirely waterless. But such is the case, and arrangements based on a maximum experience of 3 consecutive stages are employed to meet it. Of course there are occasions on survey escort duty when the only water supply is derived from the snow.

HILL PEOPLE.—The war-like proclivities of a people seem to vary in inverse ratio to the formidable character of the country they inhabit. Consequently the hill-men between Bhotan and the Lohit do not take proper advantage of their almost impregnable fastnesses, nor fall furiously upon Political and Survey Parties at the more inconvenient bits of what pass for roads through their inhospitable country. Perhaps this is at times rather fortunate considering the corporal's guards that generally form the escorts. High up the valleys where the mountaineers are more truculent, savage collisions are more likely to occur and calculations must be made accordingly. Those hillmen, who are at all in touch with the plains of Assam, have lived until recently (the Abors especially) on a reputation for ferocity, acquired during our early and unfortunate dealings with these tribes, and maintained since then by bluff. Nor did opportunity offer for establishing a better understanding while the martello-tower system of policing the border was followed. Since the Abor Expedition of 1911-12, a more active policy has been pursued from Bhotan to the Hkampti Long, with excellent results.

The names by which we classify the North East Hill tribes are in some cases Assamese, and are in almost all cases arbitrary and unscientific. We talk of Hill Miris, Daflas, Galongs and Abors. There is very little practical difference between the first three, and as regards the last, the word is derived from the Assamese '*bori*' friendly,

'a-bori' unfriendly. The Abor calls himself either by a clan name such as "Minyong" or "Padam" or, more usually, by the name of his own village or its dominant parent community.

Chulikata and Bebijia are the Assamese names by which we know two branches of the Midu clan of Mishmis. There is no common bond amongst the tribes as we classify them. No priest can fan the flame of polydemonism into a blaze of religious war, nor is any one clan at all likely to rise en masse. One or more villages may take up arms in a common cause, as the Padam did in 1894, and certain Minyong villages in 1911, but many factors militate against a more general rising. The cluster of thatched pile houses—numbering anything from a dozen up to three hundred or even more—is the real unit of thought and action. The village council, with its headman representing the general feeling of the people, is self-centred upon its fields and its hunting areas and cares little for its neighbours, unless it be an offshoot of some powerful community that is accustomed to dictate a policy to its colonies.

The number of families living in one house varies. A dozen Mishmi families may live under the same roof; but in the Abor country one house one family is the rule and it is safe to calculate $1\frac{1}{2}$ fighting men to a house. Colonies, such as those of Pemakoichen, are not to be included in the above description, as they are of Bhotanese or Tibetan origin.

TRIBAL RESOURCES.—The highlands south of the main snowy range between the Aka country and Mishmiland may be roughly divided into three zones. Nearest the plains the country is very abrupt. Villagers on the foot-hills cultivate in the plains; those further in can only hope for poor harvests from their steep hill-side fields. Beyond this belt runs a series of wide prosperous straths. These are found in the upper Daffa country, the Apatanang valley, the lower Siyom valley and the rich alluvial terraces on the Dihang, occupied by the northern Minyongs, by Simong and by the Membas. Further north the country is all peak and

precipice frowning above foaming rivers. On the lower fringe of this region the wildest savages of the North East frontier struggle for existence. The Aka people are far in advance of their eastern neighbours, although of course they cannot be called civilised.

The Mishmi country does not appear to have any zone of agricultural prosperity. It is far more abrupt than Aborland. All that can be said in its favour is that tree azaleas, rhododendrons and pines are to be found much further south than in the Abor and Dafia hills. Except in the extreme north there is very little sign of Tibetan intercourse.

The following notes on tribal resources deal chiefly with the more southern clans.

The Daffas, in which are included the kindred tribes of Hill Miris and Trans—Kamla communities, are wild, troublesome and poverty stricken. They neither spin nor weave, and grow but little rice. The southern settlements grow a great deal of tobacco in the alluvial flats where it flourishes, and as much millet, for the preparation of their favourite brew, as their fields can carry. Nowhere in the hills, even amidst the most prosperous communities, is it possible to collect dhan in any quantities; but the Dafia vies in impoverished granaries with the poorest Angong, Abor or Mishmi community. They keep goats and mithan as well as fowls and the ubiquitous village pig.

The most Northern Galongs that have been visited are wretchedly poor and inclined to be hostile. Their more southern kinsmen in the broad fertile valley of the lower Siyom are well to do. Red cattle, mithan, goats and fowls abound, and rice is, for a hill tribe, plentiful. Cloth, salt and ornaments from Tibet are brought down by Bori traders. The new frontier policy should open the Dihang Valley trade route to the Upper Galong. The Padam Abors alone are comparable in physique and wealth to the Memong clan of Galongs in the Siyom Valley. The more southern Galongs are dependent on Assam for cloth and salt.

The Abors keep mithan, but do not breed goats. The very few cattle to be found at such places as Yemsing have been brought from the Galongs. The Tangam Abors (living north of the 29th parallel and up to the gorge on both banks of the Tsanpo) are a poor race harried by Membas and Simong Abors alike. The Angong Abors are not much better off, and subsist for half the year on birds and mice eked out with bread, made of a sort of palm-meal, and on such fruits of the jungle as they can grub up. Tibet looms largely on their horizon. Karko is fortunate in its fields and well stored granaries. Simong is flourishing but its northern colonies have a harder struggle to live.

The Panggi Abors are poor, dirty, and of indifferent physique. Fine men, big villages and long bamboo aquaducts are the Padam characteristics. Some of these aquaducts bring the village water over 1,000 yards. The Minyongs North of Yekshing have good and extensive fields, but until Mr. W. C. M. Dundas, C. I. E., introduced wet rice cultivation at Rotung, this form of agriculture did not exist in these hills South of Pemakoichen.

While the main Abor crop is rice, the staple Mishmi cereals are millet and Indian corn. The Midu Mishmis, whom we called Chulikata and Bebijia, are wild and poor. The Lohit valley Mishmis have more personal possessions but they do not take much advantage of the agricultural possibilities of the valley, as they grow hardly enough millet and Indian corn for the necessities of existence. There are terraces in the upper portion of the Lohit valley capable of development into a good rice-growing area. The Mishmis all exhibit signs of Tibetan proximity, and a proportion of the trade between Tibet and the hill people, nearest Assam, comes down from Pomed, through the Midu Mishmis and then westward through the Padam border. But there is no free intercourse between the Mishmis and Tibet.

As villages do not, with the rarest exceptions, grow enough grain for their own consumption it is almost impossible to buy rice in any quantity. When seizing the

grain of hostile villages 20 maunds per family is as much as the granaries can be expected to yield just after harvest. Unless the village has been surprised (a matter of extreme difficulty) the place will be found denuded of stock and grain, the latter being cleverly hidden in large baskets in the jungle.

Speaking generally, hillmen and women are excellent coolies; but there are two draw-backs to their use, the first that they are late starters, the second that they can hardly be induced to carry through the next village. On the other hand they are capable of carrying heavy loads quickly over fairly long stages and they do not pilfer.

HOSTILE SIGNS.—As regards the attitude of a village to be visited, blocked or panjied roads, or broken bridges are of course a declaration of war, and a deserted village is a signal for the exercise of all due precautions. Failure of the headmen to come out to receive the party and the absence of women, children and livestock are a hostile sign and call for special watchfulness.

TRIBAL TACTICS.—None of the hill tribes of the Asamese border-land are determined fighters. The Abors and Daflas having few guns, combine inferior weapons with an equally indifferent spirit. Akas, Mishmis, (other than those in the Lohit-Valley) Nagas and Lushais are perhaps a shade less contemptible foes. Hill tactics of the tribes may be summarised as follows:—

- (1.) Hasty and ill-aimed discharges of arrows by scouts.
- (2.) Stone shoots.
- (3.) Defence of stockades.
- (4.) Rushing the column on the march.
- (5.) Sudden attack from ambushade, or by a body of men ostensibly friendly.
- (6.) Wrecking roads, galleries and bridges, construction of barricades, traps, pitfalls or *panjis*.

Abor scouting arrangements are excellent. Clearings are made to expose the line of advance to piquets posted on opposite spurs, to give the longest possible warning. It has been noticed that the sentries watch in regular reliefs. The

Abor method of denying the passage of a cane bridge he does not wish to destroy is simple and, for archery tactics, perfectly effective. A long cane rope is fastened to the bridge near its centre, the other end leading into the cover of the jungle, where a piquet is posted. Should any unwelcome traveller venture to cross the bridge he is jerked into the river below. This is made easier by the destruction of the canes that (sometimes) make a footway. The vibrations of the rope also give the alarm to the watchers should an attempt be made to get across at night.

ARMAMENT.—Guns (muzzle-loaders) are extremely rare. The Padam and clans north of the Siring have a few prong guns, so, it is believed, have the Simong villages. The Tower musket is effective, owing to the miscellaneous nature of the charge, at 40 or 50 yards. The prong gun is less formidable and is altogether useless in rainy weather. The hillmen of the Tibet border use the long bow. The range varies with the weapon and the skill of its owner. The common arrow is a slip of bamboo, fire hardened, which may, or may not be poisoned. This arrow is effective up to about 180 yards. A few barbed arrows are also carried for use at close range; these are thickly coated with a mixture of aconite and croton (as a rule). His 8 to 10 foot small-headed spear is used as a khud-stick or for show. It is never thrown. A cutting sword, a short *dao* and a bundle of *panjis* complete his armament. He wears a cane helmet, woven strong enough to turn a sword cut, a surcoat of skins, a leather guard for his wrist and occasionally a shield of hide. At the back of his neck he wears a circular metal protection against sword cuts. He carries his food in packets in the rucksack, made water-proof with covering of fibre. The cross bow is only used on the Burmese side.

HEALTH OF TROOPS.—Turning to the methods that should be followed in working in these hills two points are of primary importance. First, that no savage community can be trusted with confidence. Second, that on the health of the force, fighting men and carriers, success absolutely depends.

Neglect of proper measures for security may not meet its deserts, it depends on the inclination and readiness of the savage. Adequate measures to preserve the health of the column cannot be omitted with impunity on the frontiers of Assam, where the climate overlooks no neglect. It has been found possible (with sufficient troops to keep the roads open and rebuild the bridges when landslide and flood sweep both away) to keep a line of communications of 17 stages open into August, and operations have been conducted in all months of the year. But special medical and sanitary arrangements are necessary, and drying huts where the men can lay their wet clothing on bamboo dome screens over charcoal fires are essential to health during the rains. The more important precautions at all times are:—

- (1.) A change of clothes in every rucksack.
- (2.) That every body sleeps on a *machan* raised off the ground; overhead protection is best given by light paulins, or water-proof sheets. Plantain leaves (in the lower hills), or screw pine leaves (higher up), cannot be counted on.
- (3.) Prophylactic issues of quinine.

Malinal mosquito nets are essential in the rainy season when mosquitoes and sand-flies abound. Where a poisonous fly called the dam-dim is found, he can be kept at bay only by burning sacking (which is easily procured) or red ants nests (which are not). The bite is poisonous enough to send men disabled to hospital. When halting after a stiff climb, and on reaching the site of camp it is very sound to put on a cardigan jacket, which should be carried for this purpose in the rucksack. An oiled-silk rain-coat or, cape, can be strapped on the rucksack without adding any thing appreciable to the weight of ones load and is another most valuable item of kit. A little opium is a necessity for many of the boatmen employed on this frontier, and it has been found that occasional issues of rum are of the greatest benefit to the men. Sanitation, especially in standing camp, becomes even more important than ever, as the hot weather approaches.

TACTICAL UNIT.—For jungle warfare the squad of 12 men has been found to be the most convenient unit, and the Battalion of Military Police with which I have been associated for some years has been organized accordingly. Apart from the advantage gained by so flexible an organization, it creates a body of experienced non-commissioned officers full of self-reliance and initiative.

PROCEDURE ON THE LINE OF MARCH.—The compulsory adoption of single file for troops and coolies marching along a hill road does not make for rapidity of movement and the advance of a long column is inordinately slow. Parallel routes are not to be expected, so a force that would otherwise be unwieldy should be divided into as many successive columns as the number of troops available for protection will admit. The first column, being the striking force, should only be accompanied by coolies carrying tools, S. A. A. reserve and hospital. The transport is the weak point, and is liable to a rush of swordsmen. But in this connexion it may be noted that the Abor and his kin hate and fear that gay spear-throwing head-hunting savage, the Naga coolie. The normal effect on the enemy of a perfectly silent advance is valuable. Touch is maintained on the march by the use of two simple whistle signals.

Reversing the order of the carriers during the course of the march and keeping a heavy load or a slow coolie at the head of the baggage obviates straggling. Discretionary halts after a stiff climb, or a bad obstacle, should take the place of the regular halts of civilized warfare.

Save for such interval as the advanced guard commander may find it advisable, or unavoidable, to place between his command and the main body, there should be no intervals whatsoever throughout the length of the column. Every gap is a source of weakness with nothing to recommend it.

It would be out of place to detail the various measures that have been found advisable for protection when at rest, but the following salient points may be mentioned,

- (1) all sentries in pairs.
- (2) no sentries thrown out more than 80 yards from a halted column.
- (3) Protection furnished during construction of camp by the use of patrols in the vicinity of camp and by a reserve in a central position.

CAMP CONSTRUCTION.—Camps should be rectangular, with blunted angles, and defended by a stout zariba; this is more important than an extensively cleared field of fire. Construction of camp is facilitated by the methodical telling off of troops and coolies for different fatigues before hand. As far as duties allow the same men should be detailed for the same employment each day. Huts with the open side towards the perimeter for troops and double huts for the coolies should be made first, and the defensive perimeter constructed afterwards. But the trace of the perimeter should be marked out as soon after the selection of the site as possible, to give troops their alarm posts.

GENERAL PRINCIPLES IN OPERATIONS.—Broadly stated there is only one way to deal with the hill-men. He must be harried without respite by small mobile bodies of men who, by surprising him from any and every direction, by driving him from his lairs in the jungle and generally depriving him of all feeling of security will speedily reduce him to submission. Not only does the most active offensive achieve the quickest results but there is no better way of ensuring the complete protection of one's own force, posts, columns and convoys. An enemy kept well on the move is far too much taken up with fears for his own safety to even think of aggressive measures, still less to carry them out. Leave him unmolested and he feels encouraged to start harassing tactics. When opportunity offers of striking a considerable force, advantage must be taken of it by rapidity of movement and by enveloping tactics. These are best calculated to secure the fullest results without giving the enemy a chance to disperse, practically unscathed, into the jungle. If feasible there is no better way of effecting the complete surprise of a hostile village than by marching at

night to within striking distance and attacking at dawn. But this cannot be attempted over ground that has not been previously reconnoitred. Moreover, owing to the nature of the ground, (when not too difficult to preclude these movements entirely) night operations, except on quite a small scale, are only possible under exceptional circumstances on this frontier.

The hillmen (certain tribes of the Naga and Lushai Hills excepted) are not fond of moving at night. Most tribes are far too scared of the powers of darkness. They attack soon after dawn, and will snipe with arrows late into the evening. Active and intelligent patrolling meets either case.

The hillman is too anxious for his own safety to be an aggressive enemy at any time. The ground a column has to cover in the day's march may therefore be divided into (1) that unfavourable for stone shoots or stockades, (2) danger points where these may be expected. At these danger points within a recognised hostile area no necessary measures for security when on the move may be neglected. Where the ground does not lend itself to hill tactics it is unnecessary to retard the advance of the column by any detachment of force from the main body.

STONE SHOTS. Stone shoots are platforms of bamboo suspended by ropes over precipitous bits of the path. The jungle is cleared almost to the path to give the rocks piled upon them a clear run when the rope is cut. They are not all easy to see from below but they can as a rule only be cut by some one who exposes himself to do so. Experience teaches all ranks what is likely ground for them. Shoots suspended 40 to 100 feet above the path are more likely to do mischief than those hung 1000 feet up (as sometimes they are). Having spent much time in their preparation the Abor is reluctant to cut his shoots for one man. So trickling men underneath them indicates the method of dealing with these defences. The less satisfactory way is to search the jungle near the shoots with covering fire. This will probably safeguard the passage of the column and may perhaps

bag one of the enemy. It is, however, more satisfactory to collect some sepoy's on the far side of the danger zone, if the near approach is not feasible and rush the shoots, perhaps getting on terms with the enemy at the same time. The shoots can be held till the whole column has passed over the ground they command, then destroyed, and the piles of stone that are generally collected close by, thrown down the cliff.

THE ADVANCED GUARD.—On this frontier where a small stockade or line of stone-shoots weakly held, can be carried straight away by the advanced guard commander before the enemy quite realise the situation, instant action is more often demanded than in other forms of warfare. But where a rush is not obviously indicated, the advanced guard commander, in addition to informing the O. C. Column without delay that he has reached the enemy's position, should give the commander (who ought as a rule to be well up himself) the opportunity to make a personal survey of the ground before the attack is launched.

The point of the advanced guard should be sufficiently quick to deal with any of the enemy's scouts on the rare occasions that they may be surprised on the path. Fire should not, except for some very special reason, be opened at long range. A jungle enemy is so elusive that every precaution should be taken and every effort made, when he is found in anything like mass, to get close enough to inflict effective punishment.

STOCKADES.—Stockades are very well sited, both tactically and for concealment, generally at the top of a rise. These are frequently of sufficient strength of stone and timber to resist mountain artillery; are so long (if not resting on some impassable obstacle) that the flanks can only be turned with difficulty; are provided with loop holes; and strengthened with a ditch, belts of *panjis* or stone-shoots according to the nature of the ground. A great deal of labour is devoted to their construction, and they take some time to build. The Dembuk stockade in 1894 is said to

have been over 2000 yards long and of immense strength in timber and stone work.

Behind his stockade the Abor is prepared to make a very fair stand, until he realises that his line of retreat is being threatened. As the head of the column reaches the stockade the hillman correctly judges the moment suitable for a rush of swordsmen, on the transport in rear for choice, or falling them on the troops. This emphasises the importance of keeping the columns closed up on the march and of separating the striking force from the baggage whenever possible. By keeping his attention fixed on a feint frontal attack while the real attack works round the wing of the stockade and gets across the enemy's line of retreat, it should be possible to inflict heavy punishment. A frontal attack by itself should only be delivered when it is found to be impossible to work round flanks. It is highly undesirable to fight your enemy on ground of his own choosing that he has strongly fortified, and from which, having inflicted as much loss as possible on his assailants, he can safely retire without heavy loss to himself as soon as it seems advisable to do so. The selection of an alternative route when dealing with such a position, may effect his surprise. The hillman regards such tactics as unfair. His villages (on the rare occasions that village defences are maintained) are defended only in the direction of the unfriendly village. He expects his carefully prepared position to be the scene of action, but he will possibly be aware of his danger before the enveloping force is within striking distance.

VILLAGES.—When an unfriendly village has to be searched, whether any inhabitants are to be seen, or it is apparently deserted, the search should be conducted on the following lines, the necessary dispositions being carried out as rapidly as possible. The advanced guard will take up its position on the far side of the village, taking care to keep away from the houses when it moves up. Piquets should be posted to guard the flank or flanks by which persons could escape out of the village or from which a

rush could be made on the force by a body of the enemy hiding in the jungle. After piquets are established the main body can enter the village. A special party should be told off to search the houses, some men holding the exits while others go inside. Promiscuous firing by the searching party must be strictly forbidden; reliance must be placed on the butt of the rifle, bayonet or kukri as occasion requires. Such firing as may be necessary can be done by the parties outside the village, who can do so without endangering the rest of the column. A reserve must be told off. The rear guard protects the force in the direction from which the column advanced. Before the force retires (if not before the destruction of the village defences at the end of the house search) reconnoitring parties should search the jungle near the village, disperse any enemy found lurking there and destroy caches of grain.

After a hostile village is destroyed and the fighting men have broken up into small bands capable only of guerilla tactics, the following methods should be adopted to enforce submission. Small parties should be sent out in the evening to lie up close to the enemy's hiding places. Uncut fields and "*jhum*" huts are promising spots. The parties bivouac near the edge of the jungle, on the ground to be worked through at dawn. It has been found by repeated experience that small active groups hunting through the jungle, either on the bivouac system, or by starting at the earliest dawn from camp and before the hill-man gets on the move, are exceedingly effective. Not only are the enemy severely punished but much stock and grain is destroyed on the expeditions.

POLITICAL ESCORTS.—When troops are acting as escort on a Political visit to a village, the following points should be remembered.

- (1) Special Escort to Political Officer,
- (2) An adequate reserve,
- (3) Placing the remainder of the force in a commanding position clear of the crowd, the advanced

guard being pushed straight through the village and posted clear of it on the far side.

- (4) Allowing no straggling, nor the posting of detached sentries,
- (5) Troops should be forbidden to drink "*Apong*" (the local brew) that the inhabitants of the place may offer.

TREE-FELLING.—The specialized pioneering, that work in these hills entails, need not be detailed here, but it may be noted that promiscuous tree-felling is almost as dangerous as promiscuous shooting. A tree that has been cleared of a mass of parasitic creepers has lost much of its strength and being likely to fall in a high wind should be cut down at once if dangerously near camp or the road.

BRIDGES.—The Abors throw long tubular cane bridges over their big rivers. Bridges have been used measuring up to a length of 780 feet. The best of these are flimsy structures and must be dealt gently with, so an officer should cross at the head of the column to regulate the traffic. Men should, in peace-time at all events, take their boots off before crossing. If the cane work is in bad repair, or the supports at either end weak, only one man should cross at a time. Such bridges must of course be strengthened, and a foot-way of split bamboo provided, before they can be used by regular convoys.

BOAT CONVOYS.—The following points should be remembered when working country boat convoys.

- (1) All boats should be provided with a platform for rations; a couple of ropes for hauling over rapids, and bamboos lashed along the gunwales, to keep the boat from shipping much water in the rapids.
- (2) A bugler and a megaphone are useful in the boat, occupied by the officer commanding.
- (3) Never let two boats shoot a rapid too close together, nor work two boats up a very bad run of water too close to each other; either tempts disaster.
- (4) If you get upset, stick to the "dug-out."

"British Sea Power.—A Comparative Study."

A lecture delivered at Bombay on 12th January 1915.

By A. M. REITH,

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The subject upon which I have been asked to speak to you to-night covers such a vast compass both as regards its literal, and also its technical and other phases that I have felt constrained to commit myself to paper for which I trust you will forgive me. At the outset it might be as well to explain the basis on which I have compiled this paper. I propose to start from the Trafalgar Campaign and lead you through the—from the Naval point of view—comparatively peaceful remaining part of the 19th Century to the time when the menace of foreign aggression became real and insistent, and demanded the most careful consideration of the various Governments and Boards of Admiralty in power.

In 1805, Britain was, as we know, by the brilliant final act in the great Naval drama of Trafalgar freed from the danger of invasion and conquest by a man ambitious of world dominion. The work of the Fleet after the victory was to secure our dominion on the seas by the pressure of Sea Power and it might be as well to quote here Admiral Mahan;—who tersely and ably demonstrates the nature of the power we exercised. He says:—"Amid all the pomp and circumstance of the war which for ten years to come desolated the Continent, and all the tramping to and fro over Europe of the French armies and their auxiliary legions, there went on unceasingly that noiseless pressure upon the vitals of France, that compulsion, whose silence when once noted, becomes to the observer the most striking and awful mark of the working of Sea Power."

Ever since Nelson's victory Britain has reigned undoubted, and until the last decade, unchallenged mistress of the Seas.

The removal of Napoleon after his final disaster of 1815 to St. Helena left Europe very exhausted by her efforts to throw off his yoke;—every nation was only too anxious for time alike for recovery and for internal development. Thus our ubiquitous Sea Power had placed in our hands the weapon we have effectively wielded, and which kept open our communications during the Crimean War, the Indian Mutiny, and the South African War. Almost unchecked since then the progress of peaceful industrial relations has continued, and it seems to me, that that very process contains, and must by the very nature of things contain, the elements that make world wars, not only probable, but almost inevitable. Two reasons alone why war must be regarded as almost a certainty, as almost a biological necessity as Bernhardt implies are, first because the earth's surface however large, is in the struggle of nations for territory comparatively limited, secondly the different nations that inhabit this globe are engaged in a struggle for industrial survival. We, dependent upon Sea Power from the earliest stages of our existence, the British Fleet not only preserved Britain from invasion and conquest, it also enabled her to acquire most of the vacant land situated in the temperate zones, it left her free to develop the internal resources of her islands, and secured for her colonies freedom to establish, not only industries, but the form of Government most suited to their needs.

Other nations also progressed, at first slowly, for most of them had suffered severely in the wars early in the 19th Century, also because they lacked the ready resources of Great Britain.

Progress however soon turns consumers into producers, and strong, fit, efficient and hungry nations cannot be expected to stand by for ever and watch rich rivals enjoy the good things they are not strong enough to defend. This economic rivalry, this struggle of nations for work and food, grows daily more intense. Nations may love peace, but they must live and since trade is necessary to living, they must have trade even

if they have to fight for it. It is quite possible to imagine how these influences working out as the result of the comparative peace and security, and the marvellous industrial transformations during the nineteenth century, brought us to the day when first we had to look round about us, and see how thereby France, and latterly Germany so established themselves as to become formidable antagonists of ours, not only in trade, but in what to us that most precious of all in our national life—Sea Power. We all remember the Fashoda incident and the bitter feeling engendered between our country and France worked up and played upon, as some believe, by the efforts of German diplomacy. We are indebted to our late Sovereign, King Edward VII,—for clearing away misunderstandings with our nearest neighbour—misunderstandings which had no real or satisfactory origin and laying thereby the foundation of a solid entente with France and through her with her partner Russia on the long subsisting dual alliance between these two great Powers.

The fruits of our late King's diplomatic gifts are of course so evident in our warlike combinations of to-day that it is unnecessary for me to refer to them now at any length. But before considering in detail the rise of the Imperial German Navy, it will be interesting to study the state of our own Navy in the days antecedent to the South African War, and before the intense Naval competition of later years compelled us in common with others, to bring our Fleet to a state of perfection and efficiency it had never previously known. In the year 1840 the Admiralty acquired 3 small iron paddle gunboats, and these were our first ironclads, but it was not until the lessons of the Russian War of 1854 had shown the need of protection against fire that the practice was adopted of fixing iron armour on the sides of wooden ships. Steam power had been introduced many years previously, but brought up in the splendid traditions of centuries, Naval Officers naturally disliked the idea of parting with the masts and sails which had developed the characters of the seamen who had won for Britain the mastery of the Seas, nor were they without excuse as the contemplated

change was one of vast proportions. Little by little however machinery replaced hand power, and long after the great mercantile steam-ship companies had abolished masts and sails and relied solely on steam, the Royal Navy continued the use of composite ships with steam power, and also equipped with masts and sails. As increases in speed and accuracy in navigation compelled the use of steam so the thickness and resisting power of armour plating increased as the power of gun developed. The loss of H.M.S. "Captain" in 1870 carrying down with her 475 officers and men compelled the Admiralty to cut masts and sails once and for all, and from that day the development of the ironclad may be said to date.

As the British Parliament is the mother of all popular representative institutions, so the British Navy may be said to be the mother of Navies. If the records of most of the great Fleets of the world are searched, it will be found that in greater or less degree they owe their birth to the more or less direct assistance of British Naval officers oftentimes acting with the direct authority of the British Admiralty, while in almost every Fleet of the world even to-day may be found ships designed by British brains and constructed of British material by the skilled craftsmen of these islands.

In the case of the modern German Fleet, the British Admiralty had little part in its upbuilding, but British Naval power fired the imagination of the Emperor. From his earliest years at home and in England, the future ruler's aspirations were always towards the sea, and we can now see that his dreams of later years which have taken such tangible shape, were largely due to these vivid impressions of Sea Power which he obtained during his visits to England as a boy, when his greatest delight was to watch the great ironclads moving in and out of Spithead, and which reached their climax in 1889 when Queen Victoria—on the occasion of his visit to the Cowes Regatta,—conferred on him, the then unique distinction for any foreign sovereign to hold of Admiral of the Fleet. A Grand Naval Review was also held in that year at

which the Kaiser was present and the delays and confusion which occurred on that occasion must have suggested to the young ruler, familiar with the standard of efficiency attained by the German Army, that something was lacking. What happened was this:—

The British Fleet began to unmoor preparatory to proceeding to sea at half past three in the morning, but it was not until nearly eleven o'clock that the Admiral was able to give the signal for his squadron to weigh anchor. Every vessel has peculiarities and no part of a man-of-war requires more management or experience than the handling of ground tackle. But the Admiral had to proceed to sea leaving 3 of his best ships still engaged in getting up their Anchors.

Moreover at this time even in the Channel Fleet which then consisted of five ships and was the only fully commissioned force in home waters, the main purpose of Sea Power,—to shoot straight, was certainly not kept in view. The British Navy was living on its past achievements. The available resources exceeded anything belonging to any other nation, but the Fleet still basked content in the glow of the triumphs achieved in the early years of the Nineteenth Century.

The conditions of Naval warfare had altered, but the British Fleet remained faithful to the old regime, holding fast to the belief that when war occurred there would be a sufficient interval to allow it to complete its arrangements, elaborate its plans and place all its resources on a war footing. As the British Navy in its influence on world policy inspired German ambitions, so German thoroughness in organization, when applied to the growing German Fleet, reacted upon the British Navy and gave it a new and vigorous life.

From the time of the accession of the Kaiser, he has constantly tried to reorganize and increase the strength of the German Navy, but it was not until that master of organisation—Admiral Von Tirpitz—was brought from China to become Minister of Marine in 1897 that his ambitions were to be satisfied. Admiral Von Tirpitz from the first

revealed himself as a politician and a diplomatist, overcoming opposition in the Reichstag with a smiling reasonableness. He met the wishes of opponents by good tempered argument, and with the education of the people by means of an elaborate Press Bureau, he soon became undisputed master of German Naval policy. After getting the Reichstag to agree to his first naval budget, he pointed out that it was necessary for the shipyards, (then in those days very small yards) to know what business was to be expected in order to systematize their development, and he thereby laid the foundations of the various German Naval Bills which could not be rejected without an infraction of the law. Soon after this, the Boer War occurred and the seizure of German mail steamers by the British Government on the African Coast was so played on that Von Tirpitz was able to bring in another Bill in 1900 practically doubling the strength of the Fleet. As the preamble ran:—

“To protect Germany's sea trade and Colonies in the existing circumstances, there is only one means; Germany must have a battlefleet so strong that even for the adversary with the greatest Sea Power a War against it would involve such dangers as to imperil his own position in the World.” It was also pointed out that “numerical inferiority can be compensated for by efficiency, by excellence of material, by the capacity and discipline of men. Careful preparation permitting rapid mobilisation can ensure a momentary superiority.”

So the rivalry of Germany for the command of the Seas was set on foot, and carried on until, as a result of the lessons of the Russo-Japanese War, the secret advent of the British battleship, the “Dreadnought” commissioned in 1906, found the Germans so unprepared that for almost two years the keel of not a single further battleship was laid in Germany. But the leeway was soon to be made up. An amendment to the Naval Bill was made to provide for the construction of “Dreadnoughts” leaving the Minister of Marine complete freedom in design, and only tying his hands as to the number of keels laid down. In the paper

establishment of the Fleet Laws it was specified that battleships were ships with armour belts, with the result that ships previously shown as of 4000 tons displacement have been replaced by "Dreadnoughts" of 25,000 tons carrying the heaviest guns and protected by thick armour.

Then followed the Great German Naval Act of 1912, the main features of which were that a third squadron of 8 battleships was created and maintained in full commission as part of the active battle Fleet, and the number of officers and men increased by 15,000.

In 1898 the total strength of the German Fleet was:—

- 14 battleships (half of which were third class ships)
- 18 coast defence ships.
- 13 cruisers (9 of which were of low power)
- 4 torpedo gun boats.

In 1914 before War broke out, the total strength then was:—

- 43 battleships (20 of which were "Dreadnoughts")
- 15 large armoured cruisers
- 39 protected cruisers
- 186 torpedo boats and destroyers
- 24 submarines and a total *personnel* of close on 75,000 officers and men.

So, as you see, Germany had in 16 years immensely increased her resources of ships and men, but she had done more than that, she had forced other Powers to organise and train their squadrons on a standard of efficiency never attempted in the past. The strain and stress of peace therefore closely resembled the actual conditions of war, as I found on a visit to the 2nd battle squadron of the British Fleet at Cromarty in 1913.

Given the money, Germany with her conscript Navy could find the men, and it is in the great increase of the number of men required that we, with our voluntary system, find the difficulty. We can now see how Germany by means of 5 Naval Laws and amendments within about 16 years was able to so organise her Fleet as to provide 5 battle squadrons—2 composed entirely of "Dreadnoughts," and the 3rd of good ships like the "Deutschlands". Each German battle

squadron is attended by a battle or armoured cruiser squadron, complete with small cruisers and auxiliaries of all kinds and accompanied by numerous flotillas of destroyers and submarines; more than 3-4ths—nearly 4-5ths maintained in full permanent commission—truly a most formidable fleet. We can all the more vividly realise the tremendous efforts and sacrifices all this means when we consider that such a fleet is not complete without docks which take more than 4 years to build. seamen taking 3 years to train, artificers much longer, officers 7 years; and the ships themselves large ones 4 years, and small ships 18 months to build. The efficiency which comes from the harmonious combination of these elements is a plant of very slow growth indeed. The German Navy is, as perhaps you know, manned by conscription and this enables the strength of their Navy to be increased at very small cost. A policy of simultaneous increase of ships and of men, accompanied as it has been, by the expansion of her shipbuilding and allied industries and of her dockyards, has been the secret of the rapid rise of Germany as a maritime Power wielding world wide influence. Then it has been tremendously assisted by the vast establishment of Krupps at Essen, and especially by the armour and guns manufactured by this concern.

Krupp armour has been adopted by every country and it is only lately that the British Admiralty have been able to adopt a superior process so that German cemented armour no longer holds the premier position. But then again Krupps claim that their solid steel tube guns are better than the British wirewound guns. Against this again we can say that the Japanese found that the British-made weapons gave very satisfactory results during the war with Russia, while the Krupp artillery used by the Turks in the Balkans did not realize expectations. This Krupp monopoly is to some extent a weak spot in Germany's warship building, but with her 7 large shipbuilding yards I believe Krupps will be able with their 70,000 workmen to turn out all the guns and armour for the ships which Germany is now, no doubt, building in excess of her normal naval law programme.

I hope you will pardon my somewhat extended reference to the development of the German Navy, but in order to appreciate what we of the British Empire have had, and will still have to contend against, it is necessary, and the subject has for me a fascinating interest, to realise vividly what our enemies have, as it were, behind their backs.

From any study I have made of the subject, I cannot help thinking that the German Navy is practically only the work of 2 men—The Kaiser and his Naval Minister—Von Tirpitz.

It was necessary for the developments of their arms to have the Reichstag and the people with them, and the ways by which this was arranged are full of interest. Tirpitz's mind, in the Reichstag, was not affected by religious or political prejudice. He was there to get his ships and men, and he was ready to accept these from the hands of Catholics and Socialists as long as he got them. His good humour was inexhaustable, and his beaming rubicund countenance was ever the brightest feature in the debates on his Bills and estimates. Public support was secured through the Press Bureau of the Ministry of Marine. Information is collected, collated and circulated by the Bureau and is distributed by the Naval Officers in charge with an open hand. No writer on Naval affairs in Germany could refuse to take news so willingly offered and the propaganda was, and is naturally most effective. Then the Minister of Education arranged for the young idea being initiated into the mysteries of "World Policy" and Sea Power. The most effective part of this work is whereby school masters and their classes,—mostly from the inland population are selected and taken to Kiel and other Naval ports to be sumptuously treated, and escorted by a ships band through the streets to the ships, and altogether given a very fine time. Needless to say the policy commenced at the schools is continued at the Universities. We shall now leave the German Navy to the tender mercies of Admiral Jellicoe and concentrate some attention on our own Imperial Fleet.

Everyone knows that our Navy must be the largest and most efficient Navy. It is the structure which enables our life blood in the way of commerce to flow to and from all parts of our Empire and other Countries. No one denies and especially so to-day, that it is absolutely necessary to our existence as a Great Power. Yet previous to the War most of us must admit that we gave the subject very little thought or attention, and this apathy on the part of the British Public has in the past almost brought the very fine fabric of British Sea Power to absolute ruin. The latest example was last March when Mr. Churchill only forced his $51\frac{1}{2}$ million pounds annual budget for the Navy through Parliament with the greatest difficulty, and the Navy League alone had to spend over £2000 in holding meetings and circularising members of Parliament, and in other ways fighting the activities of the small Navy Party. It is significant that we have recently heard nothing from those who took such an actively negative part on the occasion of the passing of the last Naval estimates. An attempt was made to make the Navy a party question,—a shameful proceeding when we can see in the light of later knowledge and experience how the British Navy is our "all in all." Undoubtedly the cost of the upkeep of the Navy tends to increase yearly, but if we consider that the tonnage of British shipping is close on 20 million tons the annual cost does not exceed $2\frac{1}{2}\%$; whereas to Germany with only $4\frac{1}{2}$ million tons of shipping, the cost of her Navy works out to almost 5% on this figure, besides having to pay for the maintenance of a huge army in addition.

I have endeavoured to show you the competition which we might say our country was up against as regards Naval strength. I will now show you how we have met this, and how our Fleet has been reorganised and redistributed in accordance with modern requirements. In past years the strength of the Navy was based on what was known as the Two Power Standard, but this was afterwards due to changed political conditions in Europe altered, so that to-day we have practically a two keels to one standard in all classes of ships

with the exception of what are known as "Dreadnought" or Capital ships where the standard we have is 60% greater than the next strongest Naval Power. That this standard was not sufficient to keep our Fleet at war strength is, I think, clear when we consider that 3 Super-Dreadnoughts completing in Britain for other Powers have been taken over by preemption since War started, and our 1914-15 programme for large Capital ships has been so increased that probably nearer 12 ships are being laid down than the original 4 arranged for. Previous to 1904 we only had two squadrons of old battleships in home waters, and our best ships were attached to the Mediterranean Fleet of 12 battleships, and we also had 6 battleships in Chinese waters. All the remaining large vessels were in the reserve stationed in home ports without crews and out of commission. The main precaution for the defence of the British Isles from attack was that the 2 squadrons in home waters were not permitted to be both absent at the same time. After the Russo-Japanese War however, and with the rise of the German menace in the North Sea, the redistribution of the Fleet was so arranged that 163 useless fighting ships were removed from the effective list and to-day we have a Home Fleet, perhaps a better name might have been Imperial Fleet—made up of:—

4 Battlesquadrons comprising 28 of our finest modern battleships with cruisers and destroyers on attendance, and a battlecruiser squadron of 4 very fine ships with 13 armoured cruisers, light cruisers and mine sweeping gunboats. This makes up what is called the First Fleet.

The 2nd Fleet consists of 2 Battlesquadrons of, in all, 15 preDreadnought battleships with cruisers and a mine laying squadron of 7 ships. Then comes the Third Fleet of 14 battleships and about 30 cruisers comprising the 7th, 8th, 9th, 10th, 11th and 12th cruisers squadrons of the Home Fleet. In addition to all this we have 10 torpedo flotillas and 7 submarine flotillas. Part of these are constantly engaged in patrolling the East coast of Britain between the coast of France to as far north as Scapa Flow and the Faroe Islands. The First and Second Fleets were in

peace time constantly ready for war, and the Third Fleet contained only the experts and specialists of the ships, and the bulk of the unskilled ratings were to be drafted in on mobilisation. This was completed in time for war as far as the Third Fleet was concerned by the test mobilisation of the Fleet last July. Any possibility of surprise attack by the enemy was almost completely circumvented by the glorious good fortune which led the Admiralty, purely as a coincidence I may say, to announce last February their proposals to save money by abandoning the usual summer manoeuvres and have a test mobilisation of the Third Fleet instead. Then we have the Mediterranean Fleet of 3 battlecruisers, armoured and other cruisers, destroyers and Submarines; then a long way behind we have the East Indies Squadron, the China Squadron, New Zealand Squadron, Australian Fleet, and small stations at the Cape of Good Hope, West Coast of Africa, S. E. Coast of America and West Coast of America.

The total strength of our Fleet works out about double that of the German Fleet, but then we have our ships all over the world, and Germany's strength lies mostly in the North Sea and the Baltic.

Now just a few words as to the different kinds of ships. A battleship of the "Dreadnought" type is a ship armed with one type of big gun,—it is really a big floating gun-platform and is sometimes called a Capital ship. These ships are fit to lie in line and take the hard knocks of a fleet action. They are the "heavy weights" of the fleet. A battlecruiser is the same as a "Dreadnought" battleship but with greater speed and horsepower. A cruiser is a smaller ship of highspeed usually employed for scouting, commerce protection and special service. These ships are called armoured, protected, and light cruisers according to the quantity of armour each possesses, and are the "eyes of the Fleet." A destroyer is a large type of torpedo boat originally intended to destroy such craft by gun fire,—but now with submarines the chief medium for torpedo attack. A gunboat is a small type of slow cruiser armed with light guns and spe-

cially adapted for harbour or river service. The functions of submarines and also hydroplanes are, of course, well known.

The Navy is divided up into 2 great subheads called the *material* and *personnel* respectively. The first means the ships themselves, including the guns and other mechanical aids to efficiency, and the word *personnel* implies the officers and men whose duties are to make use of the *material* provided to them. On 31st March 1914 the strength of the British Navy was 146,000 officers and men. In addition to this there are the Royal Marines about 16,000 strong, the Royal Fleet Reserve of 26,000, composed of men under 32 years of age who have left the service before completing time for Naval pension. They serve 5 years and come up for 28 days annual training and draw a shilling a day as a retainer, and agree to come up for service in the event of national emergency. The Royal Naval Reserve, the Volunteer Reserve and the Australian Fleet will add about another 28,000, bringing the total strength of the Royal Navy to say 220,000 officers and men. Recruitments for the Reserves and mine laying and mine sweeping operations recently, and the great development of the air service must have I think added another 30,000 men—so you see we have a pretty strong force to look after the destinies of the Empire.

Perhaps you will pardon my making some reference to the strategy upon which the Admiralty has acted since the commencement of the War. As Mr. Churchill has stated the British Navy was confronted with four main perils. There was the peril of being surprised at the outbreak of war before our Fleet was ready and in its war stations. That was the greatest peril of all, and we all know now how successfully it was surmounted. Then there was the danger from the escape of large numbers of enemy ships on to the trade routes. This has been now successfully overcome. As the Admiralty said they reckoned on 5% loss in the mercantile marine whereas it has only come to 1.9%. The third great danger is mines, and serious losses have been, and will be suffered on account of this. By a policy of countermining we have tried to overcome this, and the

closing of the North Sea, and proclaiming it a military area will very largely prevent the unscrupulous mining of the open seas by the enemy. The fourth and last danger is from submarines. The moral effect of this insidious form of warfare on a powerful surface propelled Fleet is very great, and we will no doubt have to prepare ourselves for further losses. Our strength in submarines is overwhelming, and we shall undoubtedly hear of daring attacks by our craft or by craft manned under British officers in German territorial waters.

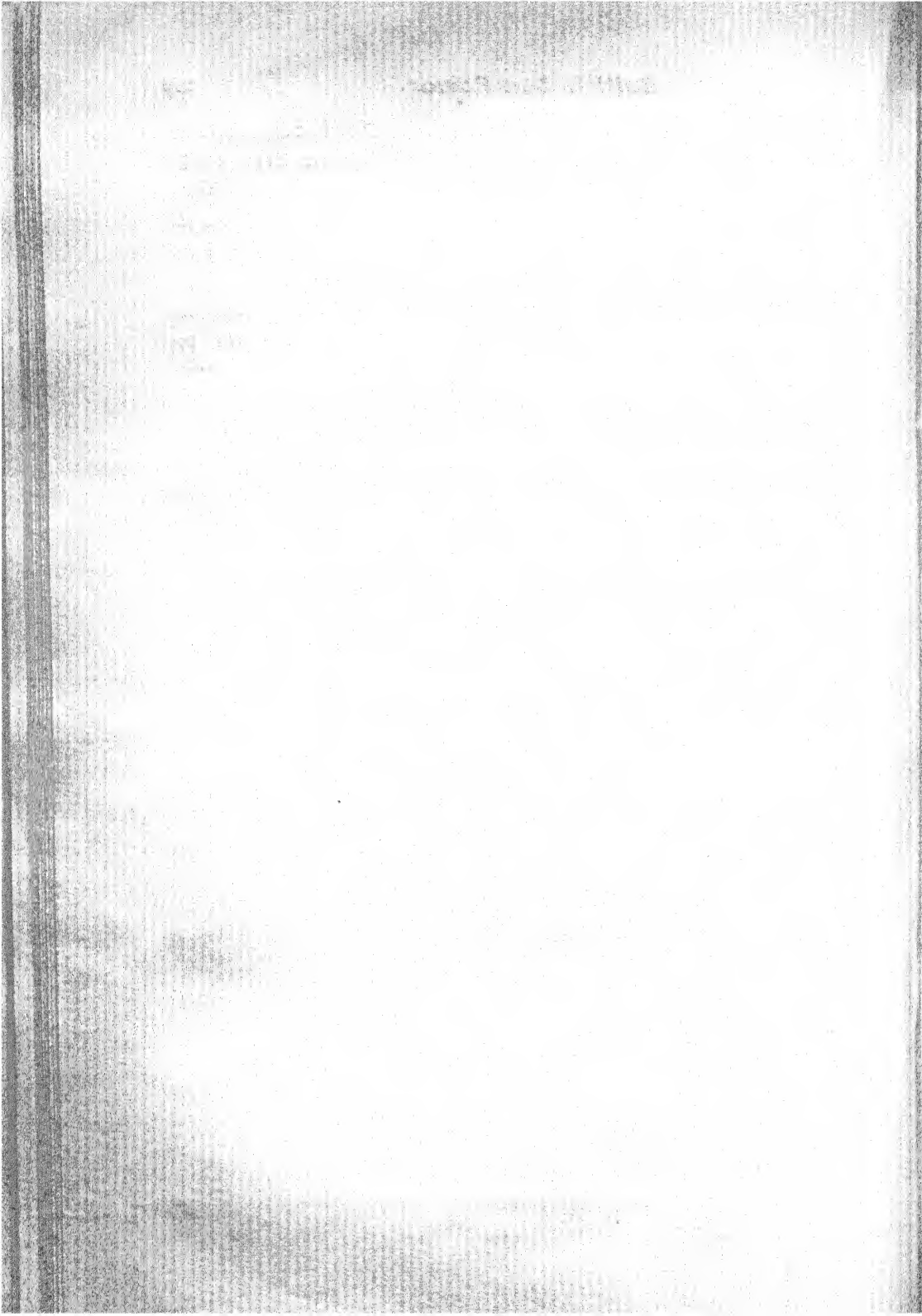
The whole strategy of the Fleet is to-day devoted to fighting against these four great dangers, and possibly to these may be added the continued development of the economic pressure on Germany, and the danger of invasion, but this is more a danger to the enemy than to ourselves. In my view the two most satisfactory features so far have been the fact that we have sustained no losses to our strength in "Dreadnoughts" or Capital ships which are the mainstay of Sea Power; and secondly the splendid success attending the new light cruisers of the "Arethusa" class. These trim little demons of war are meant to stand between the huge battleship, and its natural pest, the destroyer. They burn oil fuel, and steam at 30 knots and though they are only 1-5th the tonnage of a "Dreadnought," in their frail hulls pulsates the engine power of a mighty battlecruiser. Sixteen of these vessels will be ready within this year.

Thank to Sir Percy Scott and Lord Fisher the gunnery of the Fleet is magnificent, as has already been proved in several actions. We owe it to the German menace that of recent years we have been forced to have a big Navy, that officers have been constantly employed, that war staffs and war courses have been established, and probably never at any period in our history have naval strategy, tactics, and war efficiency been studied as they are at present in the Navy.

As to the future course of events, everything depends on the German Fleet. So long as it remains undefeated so long does the menace to our Sea Power remain. At present we

are maintaining an open blockade of the North Sea, that is, our blockading line extends from France up the East coast to the Faroe Islands and from there to the coasts of Norway. We remain closely in touch with our own ports, and at the same time a long way from Germany giving her submarines and torpedo craft some distance to travel to meet us, and offering an opportunity for enemy ships to be cut off in the rear should they venture out too far. This seems to me to be in accordance with the soundest strategy. To put it in a nutshell we have the Naval situation well in hand.

The enemy Fleets are bottled up, their commerce is swept off the face of the sea, their power of hostile action is strictly limited, and we absolutely control the trade routes. We are in the magnificent position of holding the unchallenged supremacy of the Seas, and come disaster, big or small, we are not going to lose this supremacy. I would ask you all to repose your trust in our Great Silent Navy and I can assure you that such a trust will not be reposed in vain.



Translations from Russian Newspapers.

"Gouye Vremya."

(7th September 1914.)

THE FORTRESS OF PRZEMYSŁ.

The fortress of Przemyśl which covers the passage of the San, is the most important road and railway junction in central Galicia and lies on the direct route from the Russian frontier to Buda-Pesth. From the military point of view it is similar to Cracow, but it has not as much political and administrative importance as the latter. Thus in the gradual development of the fortifications, the special point to which attention has been given, is the protection of the road and railway bridges over the San, the defence of the town being a secondary matter.

The present fortifications consist of an inner and an outer fortified line. The inner line comprises 5 large permanent forts and 20 smaller ones, connected by subsidiary works in the intervals to form an uninterrupted barrier some 15 kilometres in circumference. The outer line was commenced in 1880 and only completed in 1900. In designing this line the primary object of the Austrian engineers was to secure the passage of troops over the San from interruption from the north and east. On the north the forts are 6 kilometres from the bridge. On the north-west and west fronts they average about $4\frac{1}{2}$ kilometres. The south-west portion of the line which protects the space between the San and its tributary the Viar, is traversed by the railway leading through Lemburg to the Russian frontier. This is the front most open to attack. Realizing this, the Austrians have advanced the outer line to a distance of 12 kilometres from the river crossings. In the whole outer line there are 9 large and 10 small permanent forts, 16 large and 6 small semi-permanent batteries, and fortifications. The total circumference is 42 kilometres and the average interval between works 1 kilometre. The fortress is calculated to require a garrison of 45,000 men.

*9th September 1914.***ENGLAND'S PART IN THE WAR.**

The participation of England has given to the war a worldwide character. The conflict is now being waged not only in Europe, but in Africa, Asia, the Pacific Islands, and on every ocean. But the main theatre is in Europe and hitherto the assistance of the British Army, reinforcements are pouring in from all parts of the world.

It is difficult to appraise now at its full value the assistance which England is rendering. To put it briefly, the German mercantile fleet has vanished from the seas, and Germany is thus cut off from the chief source of her prosperity. German war-ships have been forced to take refuge in fortified harbours, and the allies have thus been enabled to transport to France 300,000 troops from England, Algiers and other parts of the world.

Notwithstanding all this, the British government deems England's share insufficient. The expeditionary force landed in France is too weak in number and has been forced to retire before the overwhelming forces of the enemy, France with a population of 40 millions has put in the field an army of 2 millions. England which has a population of 50 millions ought to be able to supply $2\frac{1}{2}$ millions. Actually at the moment of gravest peril she was able to send to France an auxiliary force barely amounting to $\frac{1}{25}$ th of this number. The English nation is not shrinking from its obligations; 30,000 volunteers have already come forward, and the daily influx of recruits is sufficient to form $1\frac{1}{2}$ new divisions. In addition the colonies are sending a constant supply of reinforcements voluntarily and without the least obligation to do so. This universal enthusiasm is magnificent, but all the same it cannot supply at the present critical moment that half million or million men whose presence on the battlefields of northern France would completely shatter German hopes.

Universal military service as adopted by continental nations would have made it possible for England to deal an immediate and knockdown blow and would have shortened the

war to a few months at the most. However it is too late to think of this, and England must make the best of the means at her disposal. She must not hesitate to put into the French theatre of war immediately, all her available strength to the last regiment and battery. For the obstacles in the way of the Russian armies moving to the rescue of France are many and serious. By our successes in East Prussia and Galicia we have compelled the Germans to weaken their western armies by 300,000 men, but the strength of those armies is still great. The presence of a new British army of 300,000 men in France at the present time would have a tremendous effect on the future course of operations, but this we fear, cannot be expected for some time. The new British army can scarcely be ready for service before the expiration of several months.

2nd November 1914.

ORGANIZATION OF THE TURKISH ARMY.

German officers are in command of many units on the Caucasus frontier. On this frontier and in the Northern Persian district there were at the beginning of this autumn three Turkish Army Corps, the normal organization of each of which is 3 divisions, several cavalry regiments and the technical troops. Each division normally consists of 3 three-battalion regiments and an artillery regiment of 6 batteries; in each quick-firing battery there are 4 guns. Five squadrons constitute a cavalry regiment and three regiments are combined into a cavalry brigade to which is added a machine gun section and a two-battery horse artillery battery. In addition to these troops, 50 Kurdish regiments have been formed in Armenia, averaging about 15 to 20 thousand horsemen of the various tribes. In training, discipline and armament, this tribal cavalry is much inferior to the regular troops.

The Turkish soldier is made of good fighting material. The recent well-designed reorganization of the Turkish Army was intended to enable the Turks to cope with their European neighbours. The recent mobilization was worked according to a German scheme. With the declaration of mobilization, the units of the Nizam were brought up to

war strength with rank and file from the Redif battalions, which were always capable of fighting well in entrenched positions, though their capability in active operations has not yet been proved.

4th November 1914.

It is rumoured that the Turkish Force to operate against Russia will be under the command of General von Sanders, that sent to Egypt under Izat Pasha, while Enver Pasha will command the Army in Thrace. Trustworthy sources give the strength of the force destined for Egypt as 200,000. The whole strength of the Ottoman Government will be specially directed to that side. Izat Pasha is reckoned as one of the most able and experienced of Turkish leaders.

In a leading article, it is stated that the control of the Dardanelles and Bosphorus, in the hands of the Sultan, was a dangerous plaything—in the hands of the German Emperor, it would constitute a real danger for all Europe. "The question of establishing Russian control over the exit from a Russian sea, while not ceasing to be before everything a Russian question, appears now in its proper outline to the eyes of all Europe."

In another article the histotic ideals to be realised by the war are stated to be,—the freeing of the Slavs from the German yoke, Russia's release from German pressure, the banishment of the Turks from Europe, and the raising of the Cross on St. Sofia.

5th November 1914.

A letter from Teheran gives the following details as to German activities in Persia before the outbreak of war. At the beginning of 1907 a German Consulate was established in Bushire, a step which German economic interests did not seem to warrant. In October 1907, an important German school was opened in Teheran. A free site was granted by the Government, who also subsidized the school to the extent of 12,000 tomans yearly (say £2,300). The school is also subsidized from Germany to the extent of fifty to eighty

thousand francs yearly. It is the most important educational institute in Tehran and the most fruitful source of German influence. In 1907 the Director of the German Eastern Bank obtained an important concession for the opening of a German Bank in Teheran, with branches at Tabriz and other centres for a period of 40 years. Other valuable trading concessions were also granted to the same firm, but were afterwards annulled on the united protest of Russia and Britain. In 1907 the German ambassador alone of all the representatives of the disinterested nationalities took part in the political crisis. The ambassador was recalled but his successor displayed considerable political activity in matters entirely apart from his duties. In 1908 a Persian Constitutional Committee was organized in Berlin, and, according to the "Standard", a secret Convention was reached between Germany and Turkey, with the object of combating the Anglo-Russian agreement. The Turks meanwhile had in 1912 acquired some 12,000 square miles of Persian territory during the last 6 years (cited from Morning Post) and this strategic acquisition was inspired by Germany. German activity in Ispahan and Azerbaijan is well known. At present Germany has, besides the Mission at Teheran, consulates at Benner, Bushire and Azerbaijan, and a diplomatic agency at Resht, while her imports into Persia for the last financial period 1913-14) amounted to 4,277,566 roubles and her exports therefrom into Germany to 585,684 roubles (say £ 661,400 and £ 61,821 respectively).

The immediate problem for Anglo-Russian diplomacy to solve, is how to arrange for the discontinuance of these consulates, which serve the interests not of German trade but of German diplomacy.

26th November 1914.

In the principal area of operations, the Turks can dispose of 3 corps of Nizam troops, quartered in peace time at Van, Erzerum, and Erzinjan, where are also their headquarters. Besides these there are about two divisions of second line (Redif troops) at Baiburt and Trebezond. Finally

the Turks were able to move up two Nizam corps from Baghdad, leaving there only second line troops; these two corps would follow the route through Mosul.

But the principal foe, against whom our troops are fighting, is, not the Turks, but climatic conditions. Eastern Armenia is very mountainous and the movement of considerable masses of troops is confined to narrow plains, lying between the mountain spurs of Javer and its offshoots. The most important valleys for us are those running from our frontier to Passis (the upper and lower valleys). Erzerum, Erzinjan and Baiburt. These valleys run by way of the Karaderbent pass and join up with the broader plains in which lie Alashkert, Diadin and Bayazid. By these valleys run the chief lines of communication between Erzerum and the Caucasus, by Olta, Batum, Kars and Erivan. The first two pass through extremely broken and mountainous country. In general the roads from Erzerum to our frontier are not metalled and are kept in very bad repair. From Erzerum there is a metalled road through Baiburt to Trebizond and Erzinjan. There are also fair roads running south by Khuis to Mush and by Diabekr to Mosul.

The height of the Erzerum valleys is 6000 feet, while the surrounding mountains rise to 10,000 feet.

7th November, 1914

"Russkii Invalid."

FORTIFICATIONS OF THE DARDANELLES IN 1911.

The Dardanelles, which unite the Aegean Sea with the Sea of Marmora, flow between the Asiatic shore and the Peninsula of Gallipoli—the latter is some 55 miles long, while the general length of the gulf is 42 miles. Its breadth and its defensive capabilities, however, vary considerably. Special attention may be paid to the three parts into which the straits are divided.

(1) The lower or Western Part. This begins between the promontories of Tekeh on the Peninsula and Yeni Shehr on the Asiatic shore. The distance between these is $3\frac{1}{2}$ miles. At

the beginning the straits have a width of some 3,800 meters, and here on some flat ground are erected 2 forts of old pattern, Said-il-Bahr on the European and Kum-kaleh on the Asiatic side. These are massive stone structures, and in 1885 on the European side were placed the upper battery of Erotgrul and the lower batteries of Ak-Tabieh and Eske-Hissarlik. In rear lies a ruined fort, and on the Asiatic shore the Orkhanian Battery. These fortifications were supplied with Krupp guns of 15 to 28 cm.

The northern shore of the Dardanelles is, save for some small stream beds, desolate and monotonous. It rises gradually towards the interior of the peninsula, where the country becomes mountainous. Further to the north there is a steep fall to the gulf of Saros. There are few landing places. There is a strong current along the northern bank into the Aegean Sea, of an average swiftness of 2.8 kilometers an hour, reaching in the narrower places a strength of 8.3 kilometers an hour.

The Southern shore is flatter, and only becomes hilly at some distance from the bank. There are many streams and marshes, and the water shoals at some two to three hundred metres from the bank.

Further on, the straits widen to 7 kilometres, and then gradually become narrower. At a distance of 15 kilometres from the entrance, at Cape Kephets, behind which lies the bay of Sari-siglar, they are 3 kilometres wide. At this spot, on the European side, are an old fort and the new battery of Vaikrokh, while on the Asiatic shore there also exist an old fort and a new battery.

(2) The Central Dardanelles are defended by the forts of Kilid-Bahr on the northern, and Sultaneh (Bogar-Hissar) on the southern shore. The distance between them is 1500 yards. They also are old stone buildings, but certain new fortifications have been constructed. Not far from the town of Chanak Kalesse, near Fort Sultaneh, are two new batteries, Tsarke and Chemeny-i-Tabiasi, and in rear of them lunettes for rear defence; southward 800 metres lies the Hamidieh battery. (This whole group of fortifications is termed

Chanak). On the European side, to the south of fort Kilid-Bahr, a new Battery of the same name has been erected; also a small earthwork called Eni-Mojidieh, and a large size one, named Namavis. The armament here is 12 to 35 cm. guns.

Further to the north, the Dardanelles widen to four kilometres, and then at a distance of 7 kilometres from Kilid-Bahr, narrow to $2\frac{1}{2}$ kilometres. Both banks are dotted with fortifications—13 in all. Of these the most noticeable on the European side are the earthwork of Degermen-Burun, the new fort of Cham-Burun, the Maidos battery, the elevated battery of Kiamlekh (120 m.), the Kilia battery and fort Bokhalali, on the Asiatic side, Forts Majidieh, Kesh-Burun, Bagara.

This section of the Dardanelles offers by far the most serious obstacle to any naval attack.

(3) The third section continues for 30 kilometres, with an average breadth of 5 to 8 kilometres, from Bukhale Nagara to the town of Gallipoli, where there exists a finely situated fort, which may be reckoned as the "Redoubt" of the Dardanelles defence. 14 kilometres to the north of the town extends the rear position of Bulair, so well known from the Balkan war. It fronts north-east, and intersects the Gallipoli peninsula where it narrows.

7th November 1914.

THE STRENGTH OF OUR OPPONENTS.

The strength of a field army depends on the size of the nucleus kept up in peace time, that is, the standing army; on the organization of reserve troops; and on the available cadres of officers and Non-commissioned officers. It is unsound to measure it on the basis of the supply of trained, and even untrained, men in the country, as the field army in a European war can only consist of organized bodies of troops, provided with trustworthy cadres. Besides which, it must be borne in mind that, in view of the heavy losses, in modern warfare, a considerable proportion of the general supply of men is needed to replace casualties

and not to form new units. If, therefore, we admit that Germany has a total of 5 million men, taking all the classes of conscription, that does not mean that she can maintain an army of 5 million. How many can she maintain?

The answer to this question is given by a high authority, writing in the Roumanian paper "Roumanie," who confirms our own opinion on the subject.

<i>Units.</i>		<i>Germany.</i>	<i>Austria-Hungary.</i>	<i>Total.</i>
Corps ...	...	25	16	41
Infantry Divisions...	...	50	49	99
Battalions ...	...	669	681	1350
Squadrons ...	...	547	348	895
Field Batteries ...	...	642	342	984
Field Guns ...	...	3,787	1,920	5,724
Establishment of Officers ...	...	36,400	34,186	70,586
Establishment of other				
Ranks ...	...	770,400	380,496	1,150,896

The author adds that the strength of Russia and France together, excluding other allies, amounts to 80,645 Officers and 1,880,000 other ranks.

In the above table, there is a great difference in the organization of the two armies; in Germany an army corps consists of 2 divisions, in Austria of 3; besides, the Austrian and Hungarian Landwehr is included in the numbers of their first line troops, and one landwehr division forms part (in peace time, at any rate) of each army corps. In Germany, the landwehr is a special category of the reserves and forms second line troops. Lastly, it will be noticed that the number of battalions is about the same in both countries; this is due to the fact that an Austrian regiment, except the Landwehr regiments, consists of 3 battalions, as against the German two. But the peace establishment of the Austrian army is only about half that of the German, which must adversely affect its efficiency.

The author goes on to consider the possibility of the formation of new units. As is well known, Germany had prepared for the formation on mobilization of three new

categories; reserve corps, landwehr divisions and parts of the landsturm.

It was proposed to attach 12 to 16 reserve battalions to each line corps of the regular Army. Taking the higher figure this would give 400 reserve battalions in all, that is 17 new reserve corps. It is now reported, however, that, thanks to measures adopted immediately before war, Germany managed to form 25 reserve corps, instead of 17. Landwehr formations were worked out at 1 brigade per corps, that is a total of 13 landwehr divisions, but according to the latest information, this was increased to 25 divisions. The author remarks, however, that these divisions are much inferior to the reserve troops and are hardly fit for field operations, owing to an insufficiency of artillery, parks and transport.

Next, to consider the cadres of officers:—the total of officers in Germany, both those on the active list and of the reserve, comes to 70,000. Subtracting about 20% for those in staff employ and in various departments, one is left with about 52,800 officers, which is roughly the figure needed for the 25 regular and 25 reserve corps (1,000 to 1,100 officers per corps). The provision of officers for the 25 landwehr divisions was effected by the grant of commissions to senior sergeant majors. The landsturm is primarily intended for local defence, but as a matter of fact is being used, by both Germany and Austria for the reinforcing of the field armies.

9th November 1914.

THE WAR.

In an article on the Turkish position, it is stated that in the region of the Tigris and Euphrates England can hardly refrain from availing herself of the opportunity of establishing herself securely at the mouth of the Shat-el-Arab and in Koweit, so as to secure the outlets of the Asia Minor Railways into the Persian Gulf. In order to dispute this, the Turks would have to retain the 6th (their best) Army Corps in this district, instead of using it for operations

against the Russians in Trans Caucasia, as heretofore. Not more than two or three Corps would be available for use against the Russians in this district, over a front of 325 miles, and a portion would have to be detached to secure the base at Erzerum. Heavy snow falls may be anticipated in the Van and Erzerum districts and the Turks are not well provided either with Transport or Supply. The Russians on the other hand are served by a railway to the very frontier. Even in the unlikely event of a Russian retreat, there is the strong obstacle of Kars to be dealt with by the Turks, and a hostile population to be encountered. Turkish Kurds are disaffected and the idea of a Mussalman rising merely fantastic. Another Turkish miscalculation has been the growth of the British land Forces, a growth which has enabled Britain to reinforce her army in France and at the same time to send another for the defence of Egypt. Historical precedents are not wanting to show what Russia's course of action should be at the present time.

14th November 1914.

THE TURKISH MOVEMENT AGAINST EGYPT.

At the present moment the disposition of the Turkish forces is as follows:—the largest group of not less than 5 corps, whose peace stations are in Anatolia and Thrace, is collected about Constantinople, the Bosphorus and Dardanelles, and the fortified places on the coasts of Thrace and Smyrna. Another group of, probably, not less than 3 corps, is concentrated in the advanced Armenian theatre opposite the Caucasus frontier. A third group of not less than 3 corps and 2 detached divisions is in the Syria-Arabian district, with the double object of preventing a hostile descent on the coasts and of operations against Egypt and the Suez Canal. Lastly a fourth group of one to two corps is probably in Mesopotamia, partly to oppose the English expedition from the Persian Gulf, and partly to overawe the unruly Arab and Kurdish tribes. All these various groups are acting independently, without any mutual concert.

For the expedition against Egypt, Germany has insisted on the preparation of a corps now held ready on the line Gaza-Maan, of Syrian troops, formed of men accustomed to a hot climate, and as auxiliaries, there are the numerous Bedouin tribes, some of whom have already crossed the frontier.

Short description of the theatre of operations. The neck of land, which lies to the north of the Sinai mountains, consists of lime-stone plateaus, intersected by dry water courses. Along the coast runs a sandy Plain. To the south rises the mountains of Jebel-el-Tih, 3,280 feet in height, dividing Stony Arabia from the Sinai peninsula, which forms a mass of mountains, 6,560 to 8,500 feet high intersected in every direction by narrow dry watercourses, which in the rainy season become impassable torrents. The cold season lasts from the beginning of November to the middle of March, and it is during this season that rain falls.

The population consists of from 15,000 to 20,000 nomad Arabs.

The nearest point in Turkish territory, from which operations could be undertaken against Egypt, is Gaza which is on the most accessible caravan-route between Africa and Asia. This route runs along the coast from Gaza to Port Said; there is another from Maan to Akaba, and thence over the desert to Suez; while a third goes from Gaza to Ismalia. The strategical importance of Akaba is due to the fact that from these, England can threaten the flank and rear of any offensive movement.

6th December.

THE IMPORTANCE OF SEA POWER IN THE DEFENCE OF EGYPT.

That England does not anticipate very energetic action on the part of the Turks is shewn by the fact that she is sending to Egypt Portuguese (sic) troops, whose value is quite unknown, and volunteers from Australia and New Zealand, who will complete their training there and then proceed to Europe.

Turkistan News.

19th November 1914.

ARMENIA AND THE WAR WITH TURKEY.

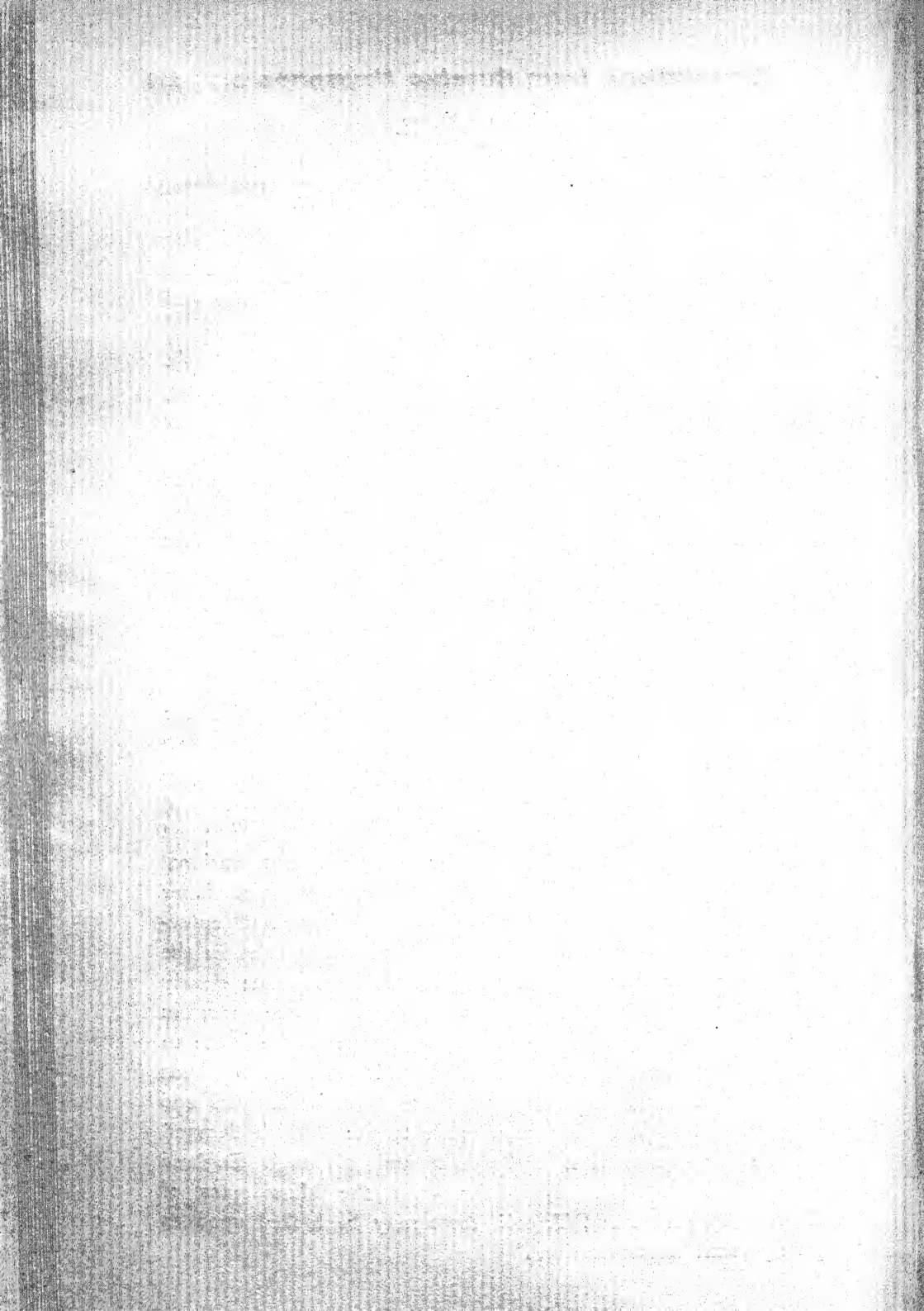
The news of the declaration of war was received with enthusiasm by the whole of the Caucasus. There were no longer Russians, Gruzcs, Armenians and Mussulman—all were welded into one by their hatred of the Turk.

The Armenians especially have long looked to Russia to save them from the constant oppression and massacre, which is their lot under their Turkish masters, and now [as soon as war was begun, all those living in Russia repudiated their Turkish allegiance and flocked to join the Russian forces. In this they displayed a greater energy than their fellow subjects of Greek nationality who after some hesitation, refused the offer of the Russian government and left the country.

29th November 1914.

MUSSULMANS AND THE WAR WITH TURKEY.

After a discussion of the attempts made by German and Turkish agents to stir up pan-Islamism—"that political utopia, impossible of realization"—throughout Mussulman countries, the article continues—the Mussulmans of India are not only accustomed to English rule, but are grateful to England for giving them the opportunity for religious and national development. The Mussulmans of Russia enjoy a fuller citizenship than their co-religionists of Turkey, and consequently are not inclined to pursue phantastical glories in the name of pan-islamic ideas. Besides, all Mussulmans see clearly that German intrigues have been the cause of the war; in India, they addressed a categorical demand to the Porte to refuse to be drawn into war and their loyalty to Great Britain admits of no doubt whatever. Both in Tangiers and in Persia no response has been made to the Turkish demand for the declaration of a Holy War and, although England has had some slight difficulties with the Mussulmans of Egypt, Cyrenaica and Tripoli, these may be looked upon as purely local demonstrations.



Quarterly Summary of Military News and Items of Interest.

ARMY HEADQUARTERS.

I. Parcel mails received from India for the Indian Expeditionary Force in Europe are exempt from customs duty.

II. Correspondence for members of the Indian Expeditionary Forces are to be addressed:—

Number, rank and name
Regiment, Corps or Department
Brigade
Division

Indian Expeditionary Force (letter of Force)
C/o Presidency Postmaster,
Bombay.

Unregistered letters, postcards, newspapers, book packets and registered and unregistered parcels (private and service) may be posted in India for delivery in the field. British postal orders may be sent to members of the *British* and *Indian* Expeditionary Forces in France and will be cashed on presentation at any post office in that country. The name of the payee should be written on each order in the space provided for the entry of the office of payment. Small packets of tobacco and cigarettes may be sent by letter post to members of the Expeditionary Forces in France and will be delivered free of duty. No insured or value-payable article is allowed to be sent to the field. No money orders or registered letters are accepted for delivery in the field. Parcels exceeding eleven pounds in weight will not be accepted for despatch. Full prepayment of postage at Indian *inland* rates is compulsory on all articles.

III. New rates of Indian pay of rank as under have been sanctioned for (a), Majors of the British Service in military employ, and (b), Captains of the British Service holding appointments as volunteer adjutants, The new rates will

have effect from the first January 1914, and will, as at present, carry exchange compensation allowance.

(a) *Majors of the British Service in Military employ.*

Arm.	On pro- motion.	After 24 years' service.
	Rs. per mensem.	Rs. per mensem.
Royal Horse Artillery	830	880
Cavalry	780	830
Royal Field Artillery and Royal Garrison Artillery	780	830
Royal Engineers	780	830
Infantry	730	780

Majors with under two years' service in the rank on the date of promulgation of these orders will be allowed to elect to remain under the old rates of pay, and those on the old higher rates of pay may continue to draw those rates, until they have attained 24 years' total service.

Unless Majors with under two years' service in that rank elect before the 1st June 1915, to remain under the old rates of pay, they shall come under the new rates.

In the case of staff and extra-regimental appointments in which pay of rank and branch is admissible, and which can be held by officers of either service, a British Service Major will receive Indian Army pay of rank.

(b) *Captains of the British Service holding appointments as volunteer adjutants.*

British Cavalry.	Royal Field and Royal Garrison Artillery.	Royal Engineers.	British Infantry.
Per mensem.	Per mensem.	Per mensem.	Per mensem.
Rs. 485	Rs. 435	Rs. 435	Rs. 435

The removal is also sanctioned of the restriction in respect to 3 years' service in the ranks to qualify for the minimum rate of pay for a Lieutenant in the case of officers commissioned from the ranks [paragraph 3 (i) (a) of the above quoted notification]. The minimum rate of pay of Lieutenant of their arm of the service will be admissible, with effect from the 1st January 1914, irrespective of length of service in the ranks.

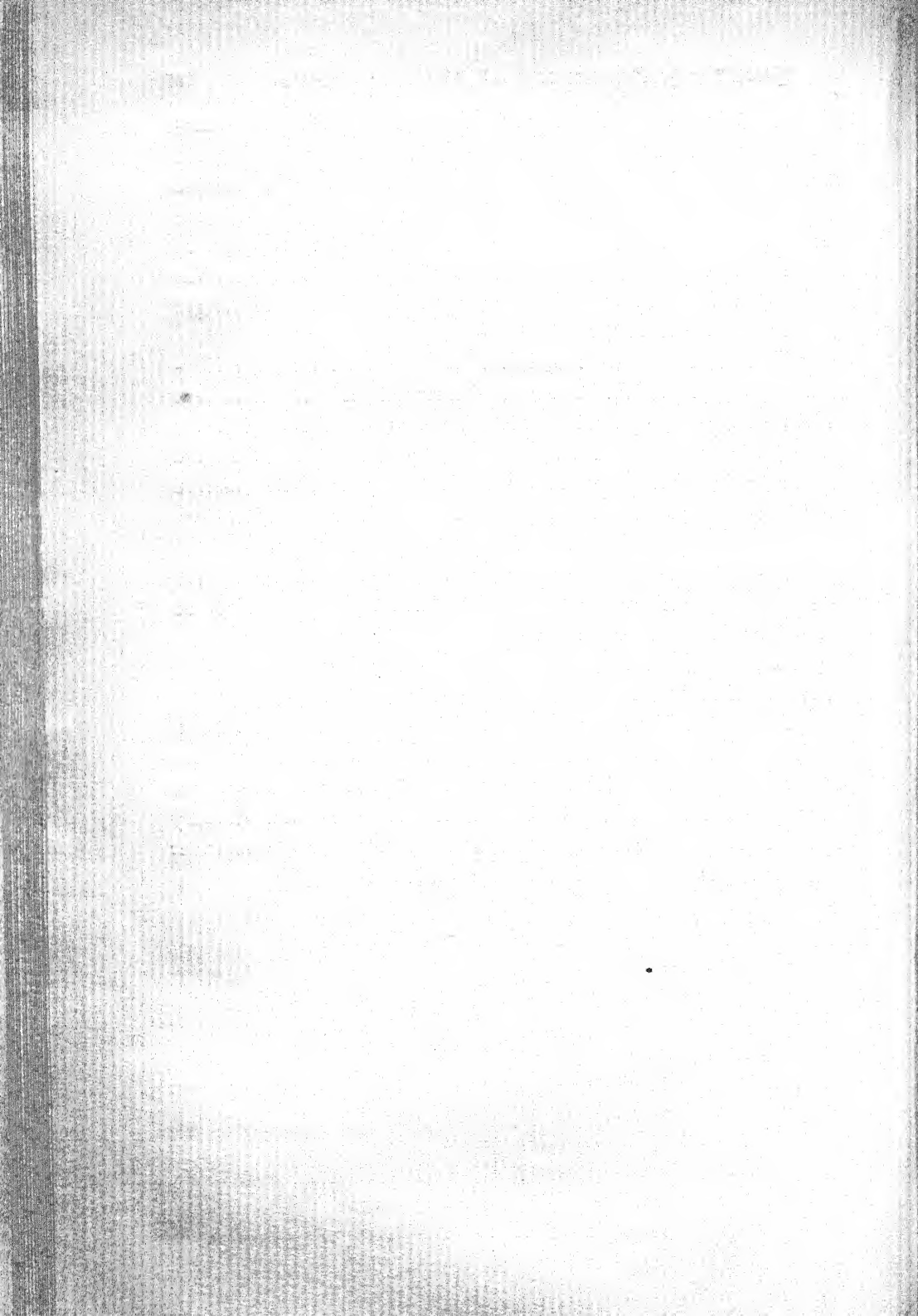
IV. The Government of India have decided that the four-company organization shall be adopted as a permanent measure in battalions of British infantry on the Indian establishment with effect from the 1st. January 1915. For the present, these companies of British infantry will be referred to in letters, telegrams or orders, as double companies.

ROYAL INDIAN MARINE.

The following Vessels with the Officers and Men have been placed at the disposal of Admiralty for service as auxilliary Cruisers etc. :—

R. I. M. S. "Dalhousie", "Dufferin", "Hardinge", "Lawrence" "Minto", and "Northbrook" and "Comet".

The new Vessel for service in the Persian Gulf, (R. I. M. S. "Nearchus") built by Messrs. William Beardmore & Co., of Dalmuir, Scotland, arrived in India, and was taken over by the Royal Indian Marine on the 18th. January 1915, and has proceeded to Persian Gulf with Commander W. C. Taylor, R. I. M., in command.



Reviews of Books.

The Japanese in Manchuria, 1904, by Colonel E. L. V. Cordonnier, Commanding 119th Infantry Regiment, French Army.

This study by a former professor at the Ecole Supérieur de Guerre originally appeared in the 'Revue d'Infanterie' between the years 1910-12. The English translation is now published in 2 Volumes, the first of which appeared in 1912 and forms part I of the work. This deals with the policy and strategical plan of the war, and the operations during the first phase of the campaign, with special reference to the battles of the Yalu and Telissu. Volume II, published in 1914, comprises parts II and III which deal respectively with "The March to the Battle" and "The Battle" of Liaoyang.

The study in no way pretends to be a history of the war, the aim of the author being, as he tells us:—

- (1) To examine the concerted action of policy, strategy and tactics, and their reaction upon one another.
- (2) To consider the types of problems which policy sets before strategy, and to attempt to imagine solutions for these problems.
- (3) To follow tactics in the situation imposed by strategy, in the manoeuvre in retreat, in the defensive battle, in the offensive battle, and in the course of the encounter battle.
- (4) To see the different arms at work in a general scheme, to discuss the role of each grade, and to show how the torch is passed down the line, hand to hand, from the general-issimo to the humble person of Tommy.

Such being the scope of the work, the author finds ample material at hand in the first, and most instructive, part of the war, terminating in the battle of Liaoyang, be-

yond which he does not extend his study. But before proceeding further with an examination of the volume, it may at once be stated that Colonel Cordonnier has carried out his task in a most able and illuminating manner, and provided us with much food for reflection—particularly in view of the stupendous struggle now being waged in Europe, wherein we find ourselves allied with Russian forces, whose actions in Manchuria 10 years ago have been subjected to much adverse criticism at the hands of military experts. Recent events would appear to indicate that Russia has learnt much from her mistakes in Manchuria; and that the 10 years which have elapsed have been profitably employed in the betterment of her whole military hierarchy. In this connection one may justifiably assume that special attention has been paid to the selection of the higher leaders in the war now being waged; for time and again Colonel Cordonnier brings to notice the apparently haphazard manner in which senior officers, who had spent many years in purely civil and administrative posts, were promoted to assume important military commands in the field. Possessing but little military knowledge, and that of a bygone day, it is scarcely surprising that they failed lamentably when faced by a foe equipped with the resource, and imbued with the offensive spirit, of the Japanese. In nearly every engagement we find that the Russian soldiery were not defeated. There was probably little to choose between them and their opponents as fighting men; but where the Japanese proved themselves so immeasurably superior was in their higher leading, and in the inestimable possession of a doctrine which had permeated the whole army.

Colonel Cordonnier draws largely on the British official history of the war for his facts, and makes considerable use also of the reports of British Military Attachés. It may be assumed, therefore, that we are presented with an accurate account of those incidents and engagements from which it is his purpose to draw lessons for the future—indeed, for today, since many of the conclusions at which he arrives are now being tested in the furnace of a mighty conflagration.

Our warmest commendations are due to Captain Atkinson for the admirable manner in which he has carried out his self-imposed task of translating this instructive work. His footnotes are useful additions to the letter press, and the maps prepared under his guidance leave nothing to be desired by the military student. In future editions of the work it would be well to remove various typographical errors which have crept into the English translation. In several instances 'left' has been used when 'right' was clearly intended; and also the common mistake of 'east' for 'west' and vice versa occasionally occur. Other instances that may be quoted are: '1st Division' for '10th Division', page 228, Volume I, 'awaitable' for 'available', page 81, Volume II, 'ceased' for 'closed', page 65, Volume II: omission of 'II' before 'Siberian Corps', middle of page 138, Volume II: omission of 'track' after 'Meng—chia—fang', bottom of page 174 Volume II: 'assaulting' for 'assembling', page 300, Volume II. These, however, are small blemishes in a work got out by Messrs. Hugh Rees in their usual attractive style.

Chapter I of Part I deals with the Causes of the War, and shows how Japan, deprived largely of her fruits of victory over China, was guided in her policy to prepare for a new war. This was to be with Russia, whose hold on Manchuria, and projected occupation of Korea, threatened Japan's very existence as a nation.

In Chapter II, the Plan of the War is discussed under the headings of Policy, Preparation of the Army, Estimation of the requisite military effort, (under which latter heading comes the consideration of the theatre of war, the probable duration of the war, and the forces regarded as necessary to achieve success. Then follows the determination of the strategic objective, in which we are given cogent reasons why the first objective of Japan, as an Island Empire, was the destruction of the Russian Far Eastern Squadron; whilst the overthrow of Russia's Manchurian Army was a matter for later consideration, in order to obtain the results that policy desired. Land and Sea strategy were at first in opposition; for whereas the interest of the former was to delay until the

break up of the ice, in order to land troops as far north on the mainland coast as possible—the interests of sea strategy demanded early action, in order to prevent a junction of the Vladivostok and Port Arthur squadrons, and a further accession of naval strength by the arrival of a Russian squadron, then in the Red Sea, and on its way to the Far East. The strategy aiming at the more important objective naturally should take precedence. So Togo made his surprise attack on the Port Arthur fleet on the night of the 8th-9th February with a view to gaining command of the sea to facilitate the transport of Japanese troops to the mainland. After a brief outline of the movements that followed the partial bottling up of the Russian fleet, the question of War and Finance is discussed. Colonel Cordonnier points out the intimate relation between financial and military situations, and shows how the exhaustion of Japanese finances had a serious effect on the terms of peace she was able to obtain. The conclusion he arrives at is that war is not only the struggle of two armies; but, as is likely to be proved in the present European war, is the wrestle of nations “which throw into the contest their blood, their money, their moral forces, their hopes and their liberty”.

Chapter III deals with protective operations, (i) to gain time, (ii) to economize space. After the initial severe losses of the Russian squadron at Port Arthur the problem before the Russians was to husband their naval resources until reinforced from Europe; and to destroy, or drive back, the armies Japan might land on the continent. An examination of the Russian forces in the Far East at the outbreak of War shows that there were some 80,000 men present; but of these only some 6 brigades were available for a mobile field army, the remainder being required as garrisons for Port Arthur, Vladivostok, and for the protection of the Trans-Siberian Railway. Consequently, in Kuropatkin's words, the Russian forces “were scattered everywhere and powerful nowhere”; whilst the railway at first could not transport more than 20,000 to 30,000 men a month, though at a later stage it dealt with 100,000 men in the same time. By the end of

April Kuropatkin could only put 3 Army Corps into the field, and desired to avoid any decisive action until assured of numerical superiority. Colonel Cordonnier in discussing the factors of space and time points out that in this present case there was no consideration of violation of Russian Territory; and a concentration at Harbin, 600 miles from the Yalu and Port Arthur, could not have been interfered with by the Japanese for many months—distance being the best means of protection. But the presence of the Russian squadron in Port Arthur prevented Kuropatkin utilising this space to concentrate in security; and, to assist the squadron, the army was placed farther forward—at Liaoyang, 300 miles from Port Arthur. Kuropatkin could not expect his numerical superiority under 5 months, and in the meanwhile it would be necessary to impose delay on any Japanese advance. This necessitated “protective manoeuvre” in order to gain time, by shifting resistance from one position to another. For this purpose Kuropatkin organised an Eastern Detachment towards the Yalu and a Southern Detachment towards Yingkou—distant respectively 125 and 75 miles from Liaoyang, and both regarded as likely landing places for the Japanese armies. Towards the end of April the Eastern Detachment on the Yalu consisted of 2 divisions and 4 regiments of Cossacks; and the Southern Detachment about Kaiping of about 2 divisions. The mission of the Eastern Detachment was to check, but not to commit itself to a decisive action against superior forces of the enemy.

The strategic disposition of the detachment was well suited to the intended manoeuvre. Clearly the capacity for resistance becomes the greater in proportion as the ground presents more barriers and lines of defence and varies with the strength of the protective force employed: and in these respects the commander of the Eastern Detachment was fortunately situated. Besides the line of the Yalu, a considerable obstacle in itself, defensible barriers existed at frequent intervals between that river and the point of Russian concentration at Liaoyang: and Zasluch had at his disposal 2 divisions and the cavalry force of 4 regiments under Mis-

chenko with which to impose delay on Kuroki's 1st Japanese Army of 3 divisions. Zasulich, however, having been absent from military duty for some years as a Provincial governor, lacked tactical ability; and, having a low opinion of the enemy's army vehemently opposed his Commander-in-Chief's orders to manoeuvre in retreat—"His Majesty has made me a Knight of the Order of St. George, and I do not retreat".

The sequel is well known: faulty tactical dispositions of the force at his disposal, lack of proper arrangements for effecting an orderly retirement in good time, and embarking on an obstinate defensive battle contrary to his Chief's orders, nearly resulted in the total destruction of the Eastern Detachment at the outset. That its destruction was not more complete was chiefly the fault of the Japanese themselves. The Guard and the 2nd Division after carrying the Yalu position halted for several hours, instead of pushing vigorously forward in pursuit of the beaten enemy. Colonel Cordonnier discusses the cause of this, and comes to the conclusion that it was not due to either physical or tactical reasons, nor to the losses suffered; but was brought about by moral tension. On first crossing swords with their redoubtable opponent much doubt and anxiety existed in the Japanese mind—the stakes for which they were playing were so high, for this was the first time in their history that they had been called upon to engage a white race. The moment the Russian position was successfully carried their "strained nerves relaxed, the exultation was tremendous and cries of joy resounded everywhere. Officers and men abandoned themselves so entirely to the relaxation of victory that no one dreamt of completing the success by pursuit". Emotion was too much for them.

Henceforward we find that Kuroki, who has been frequently accused of being over-prudent, and slow and cautious to a degree before the Yalu, became greatly daring as the campaign progressed. He had obtained the measure of his foe. Moral ascendancy had been established.

Anonymous Japanese criticisms of this battle, lately published in Tokyo, lay stress on the fact that the battle was only a "victory by accident". The intention of the Army Commander was to make a flank attack on the Russian left with the 12th Division, and, if successful, the front was to be attacked by the Guard and 2nd Division from the centre and left respectively. It is stated the plan was not carried out in accordance with his orders. The attack was unexpectedly commenced by the 2nd Division and the crossing of the Ai Ho made under the enemy's fire, whereas its mission was to hold the enemy in front with the object of facilitating the flank attack of the 12th Division. The opinion of the critics is that had the attack orders been properly carried out by the 12th Division striking its blow first, followed by that of the Guard and 2nd Division, the effect would have been crushing. Either the enemy would have been annihilated, or the greater part of his force captured owing to the line of retreat being cut; and in any case the retreat would have been a disorderly one in the direction of Takushan, instead of towards Feng-huang-cheng. The tardiness of the pursuit, too, is criticized, and is ascribed to the existing nervousness of Russia, more especially of the Russian Cavalry on account of its numerical superiority. Divisional Commanders feared to employ their divisional cavalry against the latter lest it should meet with disaster.

Colonel Cordonnier's examination of the Russian tactical dispositions for the battle will be found instructive reading. He condemns them outright, particularly as to the posting of the artillery and cavalry. In view of the role entrusted to Zasulich, his opinion is that "Little infantry, much cavalry, many batteries", is the proper proportion of the 3 arms in the composition of a protective corps, whose mission requires it persistently to manoeuvre in retreat and to be expert in disengaging itself. "The manoeuvre in retreat, therefore, will consist in occupying in advance several successive positions with the irreducible minimum of infantry; and placing the whole of the cavalry and artillery of the protective force in

the first of these positions. When the first position has been evacuated, the infantry in it will retire rapidly in small groups, without stopping to rally. The rally will be made under cover of the second position, but the rallied infantry will continue to retreat, while the cavalry and artillery, in conjunction with the infantry originally posted on the second line of resistance, will offer a fresh defence there; and so on for the third position". To employ much infantry in a combat that one intends to break off is therefore a mistake. But this judgment must be largely influenced by the nature of the terrain (its suitability for cavalry and wheeled artillery), and also by considerations regarding the intention to break off an engagement under the cover of night or otherwise.

Chapter IV treats of the false manoeuvres during the Russian concentration. Dealing first with the retreat from the Yalu, Colonel Cordonnier regards the conception as sound; but unfortunately its execution was deplorably faulty. Owing however, to the absence of pursuit, in the proper sense of the word, Zasulich was able to withdraw his shattered forces unmolested to Feng-huang-cheng; but his moral depression was such that he asked permission to continue the retreat still further towards Liaoyang: whilst Kuropatkin hastened forward forces from Liaoyang to hold the Fen-shui-ling chain of mountains, behind which the Eastern Detachment could rally. Demoralization, following defeat, thus surrendered 70 miles of country, (from the Yalu) to the Japanese without a further blow. Moreover Mischenko watching the coast in the direction of Taku-shan, drew back hurriedly with his detachment to Feng-huang-cheng, and was quickly followed by Colonel Kartzev, covering the Saimachi road on Zasulich's left. These detachments were immediately ordered back to their respective posts by the Commander-in-Chief.

Colonel Cordonnier points out that in an army possessing no doctrine, initiative can never be followed by happy results. Mischenko and Kartzev did not understand the problem set them by the situation. A bold cavalry raid, on the other hand, by Colonel Madritov against the Japanese Line of Communications, south of the Yalu, proved fruitless, for he

was ignorant of the situation; the Japanese were now based on the sea having abandoned their road communication through Korea.

Contrary to the opinion of Bernhardi, Colonel Cordonnier maintains that "wide ranging cavalry operations against the rear of the enemy's armies are a day-dream, which often haunts the imagination of our boldest and most enterprising officers." And, judging by the results obtained in this respect by cavalry in the present struggle in Europe, the latter writer appears to have considerable justification for his verdict on the employment of cavalry on such enterprises.

Coming to the defence of the Fen-shui-ling Range, the long halt of the Japanese at Feng-huang-cheng granted Kuro-patkin time to re-organise his arrangements for the continuation of his protective manoeuvre in the Eastern theatre. The command of the Eastern Detachment was now given over to Count Keller, who, like his predecessor, Zasulich, had for long been Governor-General of a province, having retired from army service as a field officer. His task was to oppose any advance of the Japanese on the front enclosed between the Taku-Shan-Hsiuyuen-Hai-cheng, and the Kaun-tien-cheng—Saimachi-Liaoyang, roads. In June the detachment was distributed over a front of 75 miles and a depth of 35; and between the various passages through this mountainous region, the country was difficult, but not absolutely inaccessible to infantry and mountain guns. Contact between the hostile outposts was close, and in the intricate ground no patrol of either side managed to get through the enemy's line of observation. Chinese spies, therefore, were the chief means of obtaining information, generally inaccurate.

Colonel Cordonnier suggests that fortified positions should have been provided across the Saimachi-Paliking road, another in front of the Motu-ling, a third in front of the Santao-ling, and a fourth before the Middle Fenshui-ling, and a strong line of resistance prepared across the Mandarin road in the vicinity of Tumentzu—the General Reserve being located, as was the case, about Langtzushan and Tawan.

This would have granted liberty of action to the Russian commander; but in disregarding these principles the Russian Army in the mountains was at the mercy of every Chinese and Cossack fable. Swayed by any rumour, therefore, we see the Russian forces embarking on a series of fruitless manoeuvres which only needlessly wearied the men.

The third false manoeuvre deals with that towards Port Arthur. After Oku won the battle of Nanshan with the 2nd Japanese Army on the 26th May, it was feared by Stössel that an assault on Port Arthur, the defences of which fortress were still far from complete, would result in its capture, and that of the Russian squadron seeking shelter in the harbour. Kuropatkin had withstood the demands of Alexiev, the Viceroy, to move to the support of the fortress; but on June 4th the Czar intervened, and placed the entire responsibility for the fate of Port Arthur on the distracted Commander-in-Chief. Ought Kuropatkin to have resigned? He had conceived the plan which, in his judgment, was best calculated to assure victory over Japan. When another scheme was set before him he accepted the task of its execution, although he had no confidence in it. He thereby showed himself wanting in force of character, in the opinion of Colonel Cordonnier.

In Chapter V. The Japanese take contact, Colonel Cordonnier follows the movements of the Japanese, i.e., the 1st Army in Korea; the crossing of the Yalu: Ha-ma-tang and the pursuit: and then deals with the operations of the 2nd Army in the Liao-tung peninsula; and those of the 2nd and 4th Armies on the eve of Telissu. Much of the contents of this chapter is historical; but several points raised by Colonel Cordonnier are worthy of reflection. Amongst these may be included the composition of Kuroki's advanced guard in his march towards the Yalu. It was formed of troops belonging to each of his three divisions, Cavalry of the 2nd Division, Artillery of the 12th, and Infantry of the Guards, an arrangement that cannot commend itself to us.

The Operation orders for the crossing of the Yalu were issued by Kuroki two days before the battle was intended to

take place. As Colonel Cordonnier points out, this was, indeed, reckoning without the enemy; and yet, owing to the supineness of the enemy, they were carried out successfully in almost every detail. It will be observed, later, that Kuroki followed a similar procedure before the Tang-ho engagement.

After the victory of the Yalu, the Japanese 1st Army was directed to halt for 45 days pending the landing of the 2nd Army in its entirety; and its advance, therefore, was stayed at Feng-huang-cheng, which was transformed into a temporary fortress. In case of attack by very superior force the 1st Army could shelter itself behind the works; and it formed a point d'appui whence feelers could be pushed out to a considerable distance, and which were instrumental in provoking false manoeuvres on the part of Count Keller. Both sides had equally strong motives in this theatre for gaining time.

It is unnecessary to review the operations of Oku's army; but it is interesting to note that shortly after the battle of Nan-shan the 1st Japanese Cavalry Brigade, sent on a mission to the north, were so severely handled by the Russian Cossacks that Japanese cavalry never again throughout the war ventured to tackle Russian horsemen, except by dismounted action. On the arrival of Nogi's divisions the 2nd Army was free to co-operate with the 1st and 4th against Kuropatkin's forces. The duty of the 10th Division was to form a connecting link between the 1st and 2nd Armies. We see, therefore, that Oyama's intention was to work with strong wing armies, and a smaller central army which regulated its movement by theirs. At the moment when the 2nd Army was to fight the battle of Telissu, the 4th Army was about Hsiu-yuen, and in touch with the 1st Army about Feng-huang-cheng.

In Chapter VI we are treated to a discussion on the Battle of Telissu. Yielding to superior authority Kuropatkin decided to attempt to succour Port Arthur, and for this purpose detailed a force of some 30,000 men which was

placed under command of General Stackelberg. But the orders issued by the Commander-in-Chief were of so vague and conflicting a nature that it is small wonder the whole enterprise was foredoomed to failure. Colonel Cordonnier bluntly states "This directive has no parallel in history". Throughout the operations the Russians were handicapped by not rightly understanding the intention of their Commander-in-Chief; and this doubt and uncertainty descended from Stackelberg down through the whole chain of command to the man in the ranks. Stackelberg took up a purely defensive position, and made a gross misuse of his cavalry, which was speedily retired to the right flank of his position, without gaining information of the enemy's columns of march, and remained glued to its allotted position throughout the first day of battle.

As regards the Japanese approach march it is worthy of note that the 3rd Division fought at Telissu on a front of 5 miles: that on the eve of the battle they were spread over a front of 22 miles, and possessed no general advanced guard. As did Kuroki at the Yalu, so Oku here deployed his divisions on a wide front, with the object of making a concentric advance against the front and one flank of Stackelberg's position—the method of the German school, as opposed to the French school which advocates an advance in one or two concentrated columns with a general advanced guard ahead.

A lively engagement on his left flank, during the 14th June, caused Stackelberg to be deceived by this feint, and to move a brigade from his reserve to that flank, thus increasing the chances of Oku's success in his intention to envelop the Russian right. In his consideration of the combination of the Japanese front and flank attacks, Colonel Cordonnier shows that in spite of some obscurity in Oku's orders, it was the intention of that General to ensure simultaneity of attack; and calls attention to the methodical organization of the battle on the Japanese side. General Oku carried out his manoeuvre before, and not during the

battle: and the enveloping tendency outlined at the very outset was maintained throughout the battle. And the Japanese were guided in the subsequent battles of the campaign by this theory of initial envelopment. The conclusion at which the author arrives is that, under modern conditions, a wide front is not injurious to the offensive, since the development of converging fire is by no means hindered thereby—nor is it liable to break, since even thin lines have considerable fire power. This opinion would appear to have been amply justified by recent events in Flanders.

In discussing the action of the Russians during the preparation of the Japanese attack, Colonel Cordonnier has much to say on the absolute necessity for a well organised staff, ensuring the rapid and accurate performance of staff duties in the field. A most important operation order alleged to have been issued by General Stackelberg for the impending battle on the 15th June was never received by any one at all! "Ignorant of these orders, each leader worked in the dark, out of touch and out of harmony with his neighbours." There appears also to have been a singular lack of means of intercommunication between the various headquarters, whereby initial mistakes might have been rectified by the frequent transmission of orders and report. Deprived of these essentials Stackelberg remained in ignorance of the course of battle, which he had failed to guide and even to direct. Consequently, Telissu, from the Russian standpoint, was a battle of confusion and lost opportunities. On the one side we see an army reduced to inertia; whereas on the other movement, the secret of victory, was the guiding principle. "Aptitude for war is nothing else than aptitude for movement. Every army that is slow and heavy is helpless. Sooner or later it is at the mercy of a more mobile and more active opponent."

Japanese critics ascribe their success at this battle to the initiative displayed by the subordinate commanders; and to Oku's correct appreciation of the situation—particularly to his recognition of the fact that the Russian Commander was not aware (as he should have been had he made proper use of

his cavalry) of the presence of the 4th Division in the vicinity of Fou-chou. Confident that the appearance of the 4th Division against the Russian right would decide the day, Oku regarded with equanimity the heavy pressure against his own right.

Napoleon and the Campaign of 1814. By Henry Houssaye,
(Hugh Rees, London.)

Many military students and civilians who have derived much profit and pleasure in studying the fascinating campaign of 1815, as described by the eminent French historian, Henry Houssaye, will, it is believed, derive no less pleasure in a study of the present volume from the same able pen.

The English translation of this work by Major McClintock, R.E., appears at an opportune moment; for it is of particular interest that we now find the French engaged, as 100 years ago, in the defence of their homeland against invasion in the plains of Champagne, and from the Rhine.

As is well known, Napoleon, beset by foes on every side and faced by great numerical superiority, succeeded for long in paralysing the operations of the forces of the Coalition. This he accomplished by the rapidity of his movements, and by his marvellous combinations on interior lines, whilst utilising to the utmost the obstacles formed by the rivers Seine, Aube, Marne and Aisne.

There are no finer examples in military history than Napoleon's earlier Mantua campaigns of 1796-97, and the one now under review, illustrating the successful manner in which superior forces may be held in check, and defeated, by inferior forces occupying a central position, when directed by a master mind.

We are in agreement with the translator when he observes that this Campaign of 1814 has perhaps not received the attention it deserves in this country; and we extend a warm welcome, therefore, to a volume which, although published in France so long ago as 1888, makes its first appearance in English in 1914. One could not, moreover, desire a more attractive account of this masterly campaign than that with which we are now presented. Henry Houssaye enjoys a high reputation for his deep research and fairness of judgment. Consequently, the reader will feel that the prevailing conditions, the military operations, and the political events described, are treated generally in an impar-

tial spirit, and intended to convey an accurate and unbiassed survey of a great human drama.

That the contents of the volume are of supreme interest and value it is unnecessary to state; for it is, perhaps, in the moments of adversity and dire distress that we can best appreciate, and express unqualified admiration for, the mighty soul of Napoleon. That dauntless spirit, which was never prepared to acknowledge defeat, but rose to the highest summit of grandeur when faced by appalling peril, and was ever ready to turn and strike at his pursuers, like some wounded lion, presents a picture that appeals most strongly to the imagination. And he would, indeed, be a dull being, who could not find many inspiring pages within the covers of this volume.

How immeasurably Napoleon excelled the Continental leaders of his day, and how great was the moral effect of his presence on friend and foe alike is clearly brought out in this book. Despite his reputation for invincibility being rudely shattered by the disastrous campaigns in Russia, and before Leipzig immediately preceding the invasion of French territory—the Allies still held him in great dread, and were not prepared to accept battle when he was present unless enjoying a very marked superiority in numbers. It was otherwise against the French marshals. They, in spite of their long experience of war under their renowned Captain, appeared to lack confidence and ability to conduct war when his guiding hand was no longer there to direct the operations. It was chiefly then, on this account, that Napoleon's finely conceived combinations were bound eventually to succumb to greater numbers. Where he himself directed, his genius for war and the magnetism of his presence brought forth all the enthusiasm and courage of his worn-out soldiery, and wrung victory from his opponents. Notwithstanding his tremendous energy, and tireless dashes from one scene to another, he could not claim ubiquity, and where he was not his marshals were defeated. So Napoleon fell.

M. Houssaye divides the campaign of 1814 into 3 phases—the first from January 25th to February 8th when, despite

Napoleon's victory over Blücher at Brienne, and his stubborn resistance against Schwarzenberg's and Blücher's forces at La Rothière, where three times his numbers were opposed to him, the French were forced to retreat.

His only hope now was that the Allies might commit a blunder. Blücher and Schwarzenberg separated their forces: and the second phase deals with Napoleon's lightning strokes against Blücher and Schwarzenberg in turn, between the 9th and 26th February. His succession of victories at Champaubert, Montmirail, Chateau-Thierry and Vauchamps against Blücher's Army of Silesia, quickly followed by those of Nangis, Montereau and Troyes against Schwarzenberg's Army of Bohemia, completely altered the whole feature of the campaign. In twenty days Napoleon won 10 battles. Blücher had been flung back to Chalons, and Schwarzenberg was retreating to the East.

The third phase opens with the action at Bar-sur-Aube against Schwarzenberg's Army on the 27th February, and closes with the Battle of Paris on the 30th March. It is chiefly with this highly dramatic phase that the work deals. The Fortune of War now turned against Napoleon. Three times did his genius nearly bring success to his combinations and the Allies to the brink of disaster; yet Luck each time saved them from defeat.

The premature surrender of Soissons by General Moreau probably saved Blücher from annihilation early in March; whilst in the further pursuit, resulting in the Battles of Craonne and Laon, Napoleon was unable to drive Blücher beyond the latter strong-hold. Here the Prussian Field Marshal, with an army of 84,000 men, successfully opposed Napoleon's 36,000, chiefly owing to Marmont's want of proper co-operation. This seriously impaired the *moral* and dwindling numbers of Napoleon's war-weary troops.

Meanwhile, Macdonald with his 30,000 troops was unable to stem the resumed advance of Schwarzenberg's army of 120,000 and was pushed back 60 miles in one week from the Aube to beyond the Seine, with a loss of 6,000 men. Further, Augereau's operations from the direction of

Lyons, which had as their object the capture of Geneva, and a movement against Schwarzenberg's communications, between Langres and Belfort, lacked vigour. They failed, therefore, of accomplishment, though the Marshal of Castiglione fame had 28,000 French at his disposal and was opposed by only 19,000 Austrians. Had this manoeuvre been successfully carried out, there seems little doubt that, at that time, the effect on the Allies' *moral* would have been immense.

To add to the gloomy outlook of the situation, Soult in the Pyrenees was rapidly retiring before Wellington, who was now on French soil; and Bordeaux had proclaimed for the Bourbons. The capital was also threatened from the direction of Lille; and Paris was in despair.

Anyone but Napoleon would have felt beaten; but peril only strengthened his resolution. He was still at Soissons when he heard the bad news that Rheims had been recaptured by the Russians, thus establishing communication between Blücher's and Schwarzenberg's armies. Napoleon at once decided to recapture this important position, which was successfully carried by Marmont with 4,000 Infantry and 4,000 Cavalry though opposed by 15,000 Russians and Prussians.

The moral effect was great. Blücher at once stayed his advance and recalled all his troops to Laon: whilst Schwarzenberg cried a halt before Provins. Napoleon rapidly descended against Schwarzenberg's flank about Plancy; but Schwarzenberg escaped disaster by a hasty retreat to Troyes. In the words of Langeron—"This terrible Napoleon, we expected him to appear anywhere. He had beaten us all, one after another; we always feared his daring, his rapidity, and his brilliant combinations. We could hardly devise a plan before it was baffled by him." Schwarzenberg had escaped more by good luck than good management.

Napoleon now decided on a bold stroke. It was open to him to press Schwarzenberg's retreat. But he aimed, as always, at big results. He decided to call Marmont and

Mortier to him from the Aisne, and directed them on Chalons; whilst he himself intended to make a flank march with the remainder of his forces from Plancy through Arcis on Vitry with the object of collecting the garrisons of the fortresses; and, with his army thus augmented to 90,000 men, falling on Schwarzenberg's rear. Paris was thus left open to Blücher; but Napoleon calculated on the garrison being able to hold out whilst he destroyed the Army of Bohemia, and then annihilated Blücher.

By some strange fatality Schwarzenberg now suddenly became infused with energy, arrested his retreat, and determined to force a battle on with Napoleon. The Emperor was then about Arcis with less than 20,000 men, against whom Schwarzenberg could oppose 100,000. During the 20th March Napoleon successfully held his own with 16,000 men against 25,000 brought against him: and on the 21st had begun to assume the offensive when he learnt the whole Allied Army with 370 guns was confronting his small force of 25,000 men. The odds were too great, so the battle was broken off, and Napoleon commenced a retreat across the Aube; and, owing to the fear instilled into Schwarzenberg, successfully got his troops over the one bridge at Arcis. The two days' fighting had ended without disaster to the French, who had only lost 3,400 men; but the strategical situation was profoundly changed. The Allies had taken heart of grace, and were bracing themselves up for a more vigorous offensive.

Napoleon had started from Rheims on the 17th March, and whilst operating against Schwarzenberg had left Marmont and Mortier to contain Blücher. The old Field Marshal on the same day resumed his advance from Laon. Marmont and Mortier fell back from the Aisne in the direction of Fismes instead of Rheims, and Blücher at once re-occupied that town, whence he marched on Chalons. Though at a distance Napoleon's insight caused him to write to Marmont on the 20th March "Blücher is about to join Schwarzenberg, and you are responsible." The subsequent attempts of these two marshals to proceed to

Chalons, as directed, was now thwarted, in spite of their endeavour to reach that place by a round-about route.

Whilst Marmont was compromising the safety of his army by false movements, Augereau was doing still worse, and surrendered Lyons to the Austrians after a feeble resistance on the 21st March. Every political consideration demanded now the presence of Napoleon at Paris: but in spite of his mishap at Arcis, he persisted in his originally designed movement on Vitry and against the Allies' communications. Space does not permit of a detailed examination of the operations that followed: but, as is well known, the capture of important letters and despatches revealed to the Allies the state of Paris and Napoleon's intentions, though touch had been lost with him. Disregarding therefore, the threat to their communications they marched straight on Paris, driving Marmont and Mortier, and other stray French detachments before them, whilst masking their movement with 10,000 Cavalry sent after Napoleon.

Not until the 27th March did Napoleon realize the true state of affairs. After a victory gained over these troops at St. Dizier, he found that his opponents were not, as he expected, a Corps of Schwarzenberg's Army; but some of Blücher's Corps. The awful truth was then brought home to him. The Allies were not following him but were on their way to Paris and had 3 days' start of him; and Napoleon decided to set out after them by forced marches. He was too late. Had he retreated on Paris with all his troops on the evening of the second day of the Battle of Arcis, he could have concentrated 100,000 men there and made preparations for the defence of the Capital against some 150,000 troops of the Allies. Success then might still have crowned his tremendous efforts; but ever a gambler, Napoleon played for higher stakes than the mere defeat of his opponents. He aimed at their complete annihilation, and would not credit them with the hardihood of abandoning their communications in order to steal a march on him and capture the capital, whilst he was beating the air.

The Battle of Paris on the 30th March brought about the capitulation of the Capital, which was signed by Marmont. On the morning of that day Napoleon had handed over the command of his army to Berthier at Troyes, and pushed on in mad impatience to Paris. Early next morning when approaching the Capital Napoleon heard the fateful tidings, and returned overwhelmed to Fontainebleau.

We are given a vivid picture of Napoleon's anguish of soul during the next few days when, deserted by the men he had created, he was finally forced to sign his Abdication on the 6th April, and start on his journey to Elba. His fiery spirit still sought means to continue the struggle; but his marshals were weary of war, refused to be moved by his earnest appeals, and insisted on an abdication, in order to gain peace.

Such, in brief, are the absorbing contents of Henry Houssaye's important work. One likes the imagination to linger on the stirring events that were being enacted one hundred years ago on the plains of Champagne, and to compare them with the still more momentous struggle that is taking place there to-day. Were the great Corsican to return to this earth now to find the descendants of his indomitable soldiery fighting for their existence as a nation, how would his presence influence the issue? He would realize that, under existing conditions, he could rarely find scope for those brilliant combinations, and rapid movements that so often led him to victory in the past; for he would see along a front of 300 miles the opponents heavily entrenched and locked in a close embrace, with little or no opportunity for manœuvre. The situation has strangely changed; and in the present day war of masses it is doubtful if another Napoleon is ever likely to arise—one who stands out alone among his compeers as a very God incarnate of War, to whose supreme genius the wide world bows in acknowledgment. But the spirit and resolution of the great master, which are the very essence of victory, will surely ever be kindled in us by a study of his immortal deeds.

"Some British Soldiers in America." By Captain W. H. Wilkin,
Sherwood Foresters, (Hugh Rees, Ltd. London).

In his preface the author truly observes that the events of the American War of Independence are very little known or studied by Englishmen; and the purpose of his book is, apparently, to revive interest in the doings of our countrymen during the protracted struggle which lasted from 1775 to 1783.

He brings to notice many points of similarity between this long drawn-out campaign, and that in which the Empire was recently engaged against the Boers in South Africa; and shows that the loss of our North American colonies was probably largely due to the fact that, whereas in South Africa we had comparatively a free hand, during the campaigns in America we were also at war with France, Spain and Holland, the three strongest naval powers in Europe at that time. Our command of the sea, therefore, was precarious and intermittent. The crushing blow administered to England when Cornwallis surrendered Yorktown in October 1781 was, in no small measure, due to the Americans being assisted by 7,000 excellent French troops—the command of the sea in American waters having temporarily passed into the hands of the French fleet.

The author tells his story by means of biographies of certain Englishmen who bore an important share in the operations on the American continent. Three of these, Howe, Carleton and Clinton were Commanders-in-Chief at different periods. Another biography is that devoted to Lord Rawdon, afterwards the Marquess of Hastings; and the brilliant exploits of three partisan leaders, Simcoe, Tarleton and Ferguson, are also recorded in separate chapters. Two officers who greatly distinguished themselves in later years in India, Sir William Medows and Lord Harris are treated together, since they were for so long companions in arms: and the point of view of a subaltern, Lieutenant Hale of the Sherwood Foresters, as shown by his letters home, forms the final chapter of the book.

There is much of interest in these pages; but it is not easy to form from them a connected impression of the varied operations that constituted this exhausting struggle between England and her kinsmen across the seas. Still, the biographies bring out clearly how our soldiers suffered under numerous disadvantages. Not the least of these were the very inadequate means placed at their disposal for the crushing of the rebellion, and the stupid interference in the military operations by the then Secretary of State for War, the notorious Lord George Germaine. From a distance of 3,000 miles before the days of steam and telegraph this worthy presumed to direct the strategy of the campaign, resulting in the wide dispersion of our small available forces, and ultimate failure to impose our will on the colonists.

The Times (London) History of the War. Parts 6 to 19.

Chapters XIV and XV amplify the information regarding the German Army previously given in Chapter II. The development of that army is followed from 1870 to 1914, and some idea is given of the wonderful administration and organization which was evolved with the purpose of bringing into action at the very commencement of the war an overwhelming force in the shortest possible time to deliver a sudden blow with the maximum violence on the selected enemy and thus to bring the war in that theatre, at any rate, to an end in a very short time, leaving the German Army free to be employed elsewhere.

Chapters XVI and XVII will be of great interest to a student of strategy; they deal with the German and French theories of war. The German theory aims at a decisive battle, ending in the absolute and utter defeat of the enemy. To achieve this the German forces were to be derailed on a wide front, their advance was to converge on the enemy, then by means of fast, smooth deployment the enemy was to be enveloped, and cut off from his base and another "Sedan" was to be the result. Again it will be seen that the German ideal was to bring the campaign to a speedy and conclusive end without delay. In this, so far, they have failed. The French theory aims at engaging the enemy at first with a strong advanced guard of all arms and retaining the mass of the troops in reserve until the situation develops and these delivering a crushing blow at the selected point. This is a more artistic method of war than the boa-constrictor tactics of the Germans, but needs a very clever general to make full it.

Chapter XVIII, is headed "The British Theory of War" but the reader after reading the chapter will be but little wiser as to what is the British Theory of War. It is true that on page 276 it says that the British aim is "to inflict a maximum while suffering a minimum loss in war;" but this laudable desire is not confined to the British

Army. The French and German theorists aim at the same result and we are told the means by which they hope to achieve it. The methods by which the British hope to achieve this result are, perhaps wisely, not stated.

Chapter XIX is an interesting account of the life and the career of Lord Kitchener. Chapter XX, describes the entry of the German forces into the Duchy of Luxemburg and into Belgium, their capture of Visé and the sternness with which they punished the civilian population for the participation of some of them in the fighting.

Chapter XXI describes the siege and capture of Liége and the courage of the small force of 22,500 Belgians, who for 2 days checked the advance of 120,000 Germans, and who had then to give way before the overwhelming numbers and big guns of the enemy, after having gained precious time, disarranged the German time-table and pricked the bubble of German invincibility. It is interesting to note that in the illustrations of a heavy siege howitzer on page 342, the artillery men are in Austrian uniform showing that the gun was borrowed from the Austrians, and is therefore not one of the 42. c.m. (16'4") howitzers, of which so much has been heard, but is the 28 c.m (11'2 inch) howitzer, as it remarked later in Chapter XXVI.

Chapter XXII, which gives a description of the German advance from Liége to Brussels, should be carefully read by pacifists and opponents of military training as it gives a picture of what a nation, however courageous, may expect if it neglects its preparations for national defence.

Chapter XXIII deals with a part of the war, generally little known to British readers, namely the invasion of Alsace and Lorraine by the French and their expulsion again by the Germans in August 1914. The events are clearly described and the reasons for the effort are clearly set forth.

Chapters XXIV and XXV give an account of German vandalism and atrocities in Belgium. It is profusely illustrated with pictures showing the damage done.

Chapter XXVI deals with the fall of Namur, gives an estimate of the composition of the British Expeditionary Force, and account of the fighting in southern Lorraine and at Charleroi and Mons.

Chapter XXVII, is a most interesting chapter, dealing with the retirement of the Allied forces from Mons and Charleroi to the line of the R. Marne. It would have been easier to follow if a map had been supplied, arranged to unfold clear of the text, and with the successive positions of Allies marked clearly on it.

The maps in Chapters XXVI and XXVII are on different scales, are bound into the book, which renders it necessary for the reader to turn over the pages constantly to refer to the map, and there is a gap between the bottom of the second map and the top of the first. In the text is a bad sentence with a Teutonic sound, *viz*: "Moreover Sir John doubted the wisdom of standing to fight on the, about to be partially entrenched position, etc."

Part 13, Chapters XXVIII and XXIX, gives a description of the evolution, organization, equipment, peace distribution and tactics of the Russian Army. Though there are several inaccuracies and some of the information is out of date, yet these chapters are very interesting, especially regarding the psychology of the Russian soldier, and the evil effect on the Russian Army of German ideas, from which it only freed itself after the Russo-Japanese War.

With Chapter XXIX, ends the 1st Volume of the History, for which handsome bindings can be purchased at cheap rates, a full index being presented with each case. Generally speaking the work has been produced for popular reading rather than for the military student. As it has been compiled during the duration of the war, it cannot be complete or give the ideas and motives which actuated the actions of the Germans and Austrians. It is however interesting, well printed and illustrated and gives the reader a good, though one sided, idea of the war.

Part 14, Chapter XXX and XXI, is entirely devoted to the work of the British Navy during the first three months of the war. This work, which is sometimes insufficiently understood and appreciated, is clearly described and due recognition is given to the work of the Royal Australian Navy in the Pacific and to the French and Russian Navies in the Mediterranean and the Baltic.

Part 15, Chapter XXXII is one of very great interest, describing the turn of the tide on the Marne and the pursuit of the retiring Germans from the R. Marne to the R. Aisne, the first part of the chapter describes the various tactical movements and the second part various incidents of the fighting. Again the want of a map, unfolding clear of text for ready reference, is felt.

Part 16, Chapter XXXIII, gives a clear account of the siege and capture of Antwerp. Unfortunately the history has been written too soon after the events to allow of the publication of the "other and powerful considerations," which prevented larger British reinforcements being sent, and sent earlier, to participate in the defence of the fortress.

Chapter XXXIV, Part 17 and the first part of Part 18, deals with the battles of the Aisne. It is well written and is furnished with a map, which can be removed from the book, and on which the positions of the British and Germans are marked in colours. The description of the strain and stress of life in the trenches at the end of Part 17 remarkably well written.

Chapter XXXV describes the development of the science of aerial navigation in machines heavier and lighter than air. The chapter is illustrated with drawing and photographs of various types of airships, aeroplanes and sea-planes.

Chapter XXXVI, Part 19, is a historical retrospect of the political history of that extraordinary conglomeration of ten nations, the Austro-Hungarian Empire. The chapter is worth the study of the military student as the heterogeneous composition of the Empire may have a great effect on the course of the present war.

Reviews of Books.

Chapter XXXVII, describes the organization of the greatest bond that holds the Austro-Hungarian Empire together, the Army. This army appears in many respects to resemble the Army in India, as for instance, the variety of races that form the rank and file, the homogeneity of the corps of officers, the hampering influence of bureaucratic methods, red tape and vouchers, and the number of languages in which instruction is imparted. For these reasons it will repay the study of British military students and especially of the Financial Branch of the Government of India. A bad mistake appears to have been made in the illustration on page 229. The picture headed "Austrian mounted battery" appears to be of a machine gun detachment of an infantry battalion.

Notices of Books.

Having been given access, by the kindness of the owner, to a private collection of hitherto unpublished water-colours, chalk studies, and other drawings by eminent Old Masters, the Editor proposes to publish a selection of them in facsimile as Supplements to the *British Review*.

The first of the series will be a pastel portrait by Sir Joshua Reynolds, reproduced by a new process on a rough surface paper to match the text, and will form the Supplement to the *Review* for February, 1915.

The Editor begs to call attention to the fact that he is prepared to consider etchings, pen or pencil drawings, and similar works by modern artists, with a view to their reproduction from time to time during the course of this series.

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The Siege of Tsing-Tao.

BY MAJOR E. F. KNOX, 36TH SIKHS.

The ex-German settlement of Tsing-Tao is built at the S. W. corner of the Kiao-Chao Peninsula in the Shan-Tung Province of N. China, on territory leased to Germany as satisfaction for the murder of two German missionaries in 1897.* A curious fact in this connection is that the two missionaries in question were murdered, not on account of any ill feeling towards Christianity, Germans, or foreigners in general, but owing to the exactions of the Governor of the Province. His proficiency in the art of 'squeeze' had risen to a pitch which stretched the endurance of the unhappy peasants to breaking point, and they cast about for a means of bringing the tyranny of the Governor to the notice of the Emperor. Knowing that the murder of a foreigner would create a great stir in the Embassy of his country at Peking, they adopted this method of bringing their case into prominence. It resulted in the despatch of a German squadron to Chinese waters under the leadership of Prince Henry of Prussia, as the representative of the Prussian 'mailed fist'. The squadron sailed after a personal exhortation from the Kaiser in which he bade the troops so behave that for the future 'no Chinaman would dare even to look askance at a German!'

* [For the history of these transactions, the reader is referred to "The Re-shaping of the Far East," by Putnam Weale.—Ed.]

The Siege of Tsing-Tao.

The Kiao-Chao Peninsula was leased to Germany for a term of 99 years with the right to erect fortifications for the protection of her settlement. The portion of the leased territory chiefly affected by the operations consists roughly of a triangle bounded on the west and south by the sea. On the north the line of demarcation follows at first the course of the Pai Sha Ho from its mouth inland as far as the village of Hua Yin, a distance of some ten miles, it then continues in an almost straight line due east for another six miles, and turning abruptly runs almost due south to the Nan Yao peninsula, which forms the eastern boundary of Lao Shan harbour, another ten miles as the crow flies. With characteristic thoroughness the Germans set about the improvement of their new possession, for certainly no German in the Far East ever contemplated the possibility of the retrocession of the country to China. Rather they looked to extend it, for a common expression amongst them was 'our province of Shan Tung', whilst the chief defences of the settlement were designed against a landward attack, or, in other words, against the Chinese themselves. Several millions sterling were expended in fortifications, the construction of a railway linked up with the Chinese State Railway system, roads, the afforesting of the peninsula both with shade and fruit trees, and the building of large docks and wharves, till in the end it was referred to variously as the 'Gibraltar of the East' or the 'brightest jewel in the German Crown'.

The chief physical features of the country are rocky terraced hills, rising occasionally to a height of 2,500' but mostly under 1000' interspersed with fruitful valleys. The majority of these valleys are well watered but there are few streams which offer any real obstacle to the passage of troops, as they are seldom more than waist deep even in rainy weather and the water drains off very rapidly, generally soaking into the country on either hand. The whole countryside is under cultivation, the chief crops being kowliang, maize, sweet potato, and peanuts. Outside the leased territory there are only Chinese roads, which is more an

euphemism than a concrete expression. The average Chinese road is a cart track or a footpath, which follows the line of least resistance. This is generally a valley bottom, and every hollow becomes a slough of despond. The Chinese carter on coming to one of these merely circles round through the adjoining field, an expedient which answers excellently for the passage of one or two carts, when, time being no object, it is a matter of indifference if your journey is protracted by an extra mile in every two. It is different, however, when it is a case of a long train. The new track becomes equally impassable with the old after the passage of the third or fourth cart, so that the radius of your circle rapidly extends, till you will have to make a circuit of a mile to avoid 400 yards of bad track. The hills, which form such a prominent feature in the conformation of the peninsula are steep, and offer endless opportunity for an enterprising defence. Though of no very great height, they are a constant menace to any force which passes within rifle range of their crests, while the intervening valleys ramifying in all directions afford excellent cover, and hidden lines of approach for the defences. It is not difficult either to find good concealed artillery positions, which it would almost impossible for an attacking force to locate. As regards this last, however, the absence of good roads is a militating factor, which to some extent forbids the use of artillery, owing to the extreme difficulty of withdrawing guns once placed in position.

The chief land defences of Tsing-Tao may be divided roughly into three main portions as under:—

1st. Permanent closed works:—

These are on a chain of hills completely sheltering the settlement, of which the most noticeable peaks are Iltis, Bismarck, and Moltke respectively 520', 430', and 250' in height. The forts on this line were:—

- a. Fort K on a hill 700', S of Iltis hill. Had emplacements for 4 guns of calibre unknown.
- b. Iltis Hill Fort; four-24 centimetre guns.
- c. Fort E on a hill $\frac{1}{4}$ mile N. E. of Iltis; two-24 centimetre guns.

The Siege of Tsing-Tao.

d. Fort J on Bismarck Hill. Consisted of a central redoubt and two flanking batteries. six—30·5 centimetre and four-9 centimetre guns.

e. Fort L on Moltke Hill, between the two peaks. four-19 centimetre guns.

f. Two forts between Bismarck Hill and Ta-Pao-Tao, on point 295, $\frac{1}{4}$ mile N. of Diederich's Hill, and on point 263 by the water tower, commanding the slopes between Forts J and L; armament unknown.

There was another fort between the village of Sao-chu-tan and the railway, armed with heavy guns, but this faced due north, and belongs more properly to the sea than the landward defences.

2nd. Semi-permanent and field works:—

These consisted of a semicircle of 5 redoubts, connected throughout by a covered way.

Of the above the two that interested the British contingent most were Nos I and II, situated on two small knolls about 100' high just above the left bank of the Hai-po-Ho.

No I (blunted lunette type) had a trace of about 300 yards long with a smooth and cleared glacis running down to the stream. It was protected by wire entanglements 4' to 5' high and about 11 yards wide.

No II was similar, but with a trace of only 200 yards.

Both were armed with machine guns and pom-poms.

All redoubts were provided with bomb proof shelters and concrete and earth traverses, and were completely commanded by the permanent works in rear. The fronts of all forts and redoubts were reported to have been mined, electric wires running back to a control station 200 yards west of the Governor's house.

3rd. Fire Trenches and Obstacles:—

There were two lines of trenches. The first ran between the redoubts, and was also the covered way referred to above. The parapet was about 18" high, and was provided with both head and overhead cover also with embrasures for machine guns. The siting of this trench directly opposite

the British front was along the forward boundary of a fairly thick plantation. Though carefully concealed and constructed to resemble its surroundings, it was quickly located from the outpost line. The natural result was that the line of trees provided an excellent ranging mark for the Japanese artillery, which was not slow to take advantage of it. The face of the trench was covered by abattis and a line of high barbed wire entanglement about 11 yards wide. This followed the slope of the ground into a sunken ditch, the counterscarp of which was formed of a loose stone wall averaging 8' high, whitewashed throughout its length. All roads through the entanglement were blocked with high 'chevaux de frise' backed by a thick earthen wall with sand-bagged front.

The second line of trenches was some 400 yards back up the hill, and about 150 yards in rear of the plantation. It was difficult to locate, only actually becoming visible when our fire trenches were within 600 yards of the line of redoubts. It was not protected by obstacles to any large extent, but the grounds sloped steeply down from it, and was absolutely devoid of all cover.

All wire entanglements were reported to have live wires running through them throughout their length.

The Hai-Po stream flowed from East to West covering the front of the entrenchments from a point about opposite No 111 redoubt. It was no real obstacle, as it was nowhere more than 12" deep, but it would have been a hindrance to a rapid advance whilst the banks gave no cover. The left bank was whitewashed, whilst on both banks and on the islands in mid stream were trip wires, some of which were said to connect with mines. The wires were concealed in grass and low growing brushwood, whilst pointed stakes, about 10" high were fixed in abundance amongst the wires.

The forts were provided with powerful searchlights, and there were also some six movable lights mounted on motor cars, or on trucks running along a light railway.

The Siege of Tsing-Tao.

In addition to the fort armaments the enemy were provided with one or two batteries of field guns.

No mention has been made of forts A. B. C. and G shewn on the map. These could only fire out to sea, and did not therefore affect the land operations. They were dealt with by the Anglo-Japanese squadron.

On the 2nd August the German regular troops at Tientsin, with the exception of a small guard over the barracks, left for Tsing-Tao by the Tientsin-Pukow (Chinese State) railway, which is joined at Tsinan-Fu by the Shan-Tung railway with its terminus at Tsing-Tao. The Legation guard at Peking, which included a battery of field artillery also started for the same place, the guard duties being taken over, it is stated, partly by reservists and partly by Chinese Republican troops. During the first week of August German reservists from all over China and Japan reported themselves for duty at Tsing-Tao, travelling some by the Chinese State railways and others by sea, the latter of course entering Chinese territorial waters. Work was immediately commenced on the defences, which were strengthened in some places, while new forts and entrenchments were thrown up in others. Chinese paid labour was largely utilised for this purpose, which gave rise to a story, which may or may not be fictitious. It was stated that a Japanese engineer officer disguised as a Chinese coolie obtained employment, and made good use of his opportunities to secure accurate information regarding the location of batteries, and other points of interest concerning the German defences. Certainly Japanese intelligence was very complete on these matters.

On the 16th August the following ultimatum was submitted to the German Ambassador at Tokio for transmission to Berlin:—

“We consider it highly important and necessary in the present situation to take measures to remove the causes of all disturbance of the peace in the Far East and to safeguard general interests as contemplated in the agreement of alliance between Japan and Great Britain. In order to secure firm and enduring peace in Eastern Asia, the es-

tablishment of which is the aim of the said agreement, the Imperial Japanese Government sincerely believes it to be its duty to give advice to the Imperial German Government to carry out the two following propositions.

(1) To withdraw immediately from Japanese and Chinese waters the German men-of-war and armed vessels of all kinds, and to disarm at once those which cannot be withdrawn.

(2) To deliver on a date not later than September 15 to the Imperial Japanese authorities, without condition or compensation, the entire leased territory of Kiao-Chao with a view to the eventual restoration of the same to China."

This ultimatum was couched in terms almost identical with the words of 'friendly advice' addressed by Germany to Japan regarding the retention of Port Arthur in 1895 after that stronghold had been captured by the Japanese in the Sino-Japanese war. The tone is such that it would had been a miracle had Germany, with her cut and dried programme of, 'Paris in three weeks', and convinced as she then was of her proximate triumph in Europe, yielded to it. The East has a long memory and it is interesting to speculate how far Japan was bent on repaying Germany for her action in robbing her of the fruits of the victory obtained over China. It was an action which later cost Japan thousands of lives and incalculable treasure in the wresting of Port Arthur from the Russians. In the end no answer was returned to the ultimatum, and Japan formally entered the war in fulfilment of her obligations under the Anglo-Japanese treaty.

No time was wasted. The ultimatum expired at noon on the 23rd August, and about the 25th the Japanese landed 2000 troops at Lung-Kow in the Gulf of Pechili on the northern shore of the Shan-Tung province. After some diplomatic pourparlers, a war Zone was proclaimed by the President of the Chinese Republic. This Zone consisted of all the territory east of a line drawn across the Shan-Tung peninsula from Ye-Chao on the Yellow Sea, due north to the shores of the Gulf of Pechili. They knew that Germany was

The Siege of Tsing-Tao.

making use of the Shan-Tung railway to bring in stores, munitions of war, and reinforcements and in fact using it as though it were German property, as for all practical purposes it was, though nominally part of the Chinese State Railway system. Tsinan-Fu junction was quickly secured. As in other parts of the world, Germany's ideas of neutrality appeared distinctly one-sided. Whilst they could use the line, China's attitude of non-interference was in their eyes perfectly correct, but directly the railway was occupied by Japan, Germany was righteously shocked at Chinese apathy, and at once indignantly protested threatening to hold China responsible for any damage done to Tsing-Tao by the Japanese operations.

It should be noted that immediately after the expiry of the ultimatum the Anglo-Japanese squadron had blockaded the harbour of Tsing-Tao and Kiao-Chao Bay. It thereby interned the Austrian cruiser Kaiserin Elizabeth, the German gunboat Panther of Agadir fame, and another small gunboat. The torpedo boat S 90 was also in the harbour. The three former were sunk by the Germans, before the surrender, but the fate of S 90 is described later.

Japan now proceeded to disembark her expeditionary force, consisting of 30,000 men under Maj.-Genl. Kamio at Lao-Shan Bay. This was successfully accomplished with slight opposition from the Germans, who held the low hills adjoining the shores of the bay. The Japanese, with some assistance from the guns of the fleet, pushed forward a brigade which crowned the heights and the enemy retired, there being few casualties on either side. It was about this time that H. M. S. Triumph was hit in the foretop by a shell from one of the sea forts, a shot which caused intense jubilation among the Germans. The destroyer H. M. S. Kennet, also, chasing S 90 into Tsing-Tao waters was decoyed by her under the guns of the forts, and rather heavily mauled. The Commander, however, in drawing the fire obtained some valuable information regarding the German sea defences, which was well worth the risk incurred by his vessel.

A more convenient landing place would have been either Lao-Shan Harbour or Sha-Tzu-Kou Bay, from either of which good roads led inland to Tsing-Tao, but the waters were heavily mined, and were too dangerous at that date, and even to the end of the operations, for the passage of transports. The Japanese having made good their footing proceeded to put up temporary wharves, and to lay a light railway, the motive power of this last being coolies. It necessitated a big circuit of 40 miles along the foot of the hills to avoid steep gradients. It was taken round outside the leased territory via Pulee and Chimo to Liu-Ting on the banks of the Pai-Sha Ho, and from thence alongside a good metalled road to Litsun. This was the farthest point to which the Germans had constructed trenches, for, in addition to the land defences detailed above, four successive lines of entrenchments had been dug between the chain of redoubts and Litsun Ho. They were of standing pattern 4' deep and 4' wide with a parapet 30" high, steps being left on the front face of the trench.

Material is not available to give in detail the Japanese operations before the 23rd September. There had been several small engagements between the Germans and Japanese, but with no casualties to speak of on either side. As a whole the German defence had not been obstinate. For instance on one occasion they retired so precipitately that they abandoned a battery of six field guns with about 200 rounds of ammunition per gun. No attempt had been made to put the guns out of action by removing breech blocks or sights, and the Japanese were able to turn the battery on to the retreating foe. The net result was that the Germans had gradually been pressed back into the country southwest of the Chang-Tsun Ho.

On the 23rd Sept. the British contingent, consisting of General Barnardiston with his staff and the 1st Bn. S. Wales Borderers, landed at Lao-Shan Bay, and on the morning of the 25th marched for Pulee. Here information was received that there would probably be an attack on the German position on the 29th, after which it was unlikely there would

be any more preliminary skirmishes, as in the event of success the enemy would be driven back inside the line of redoubts. The British force reached the Japanese Headquarters at Hsia-Wang-Pu-Chuong on the morning of the 29th, and were allotted a portion of the position for attack. The regiment moved off to carry out the order, but in the meantime a Japanese brigade under General Horiuchi had moved up from Lao-Shan Bay by a forced march of 18 miles. They had crossed the Ho-Tung pass* in the Chang-Chun-Tsao range, and turning the enemy's right, by way of Prince Henry Hill, forced them to evacuate their positions, and retire to the line of redoubts. Fort G. on the southern spur of the hill was, at the same time dealt with by the fleet. Horiuchi's brigade lost about 100 casualties in this engagement.

The S. W. Borderers now remained for about a fortnight in the 2nd line on the right bank of the Chang-Tsun Ho in the nullahs east of the village of Lauchia-Hanko-Chuang. Their position having been located by the German aeroplane, they were subjected to a heavy but innocuous shell fire. It has been stated that their position was given away by the use of tents. If this is so, the tents must have been the half dozen brought for the Base Hospital. The troops, officers and men alike, lived in dugouts or lean-to shelters. Bombs were also dropped upon them from the aeroplane, one falling through the roof of the field kitchen but failing to explode. About the 12th October they were moved into the 1st line, and occupied a portion of the outposts with two companies, the remainder being in reserve $1\frac{1}{2}$ miles in rear. The reserve companies were shelled the greater part of the night, with a result of two men wounded. The Allied Outposts were gradually pushed forward till they reached the line of hills just north of Shuang-Shan from which a glacis like slope ran down to the Hai-Po Ho. Up to the 12th October the

* The Ho-Tung pass is not shewn on the map, and was impassable for wheeled transport.

weather had been bright and fine, but the wind now shifted to the S. E. bringing in its train heavy rains, which caused much discomfort, and interfered greatly with the conduct of the operations. All the low-lying country was turned into a spongy waterlogged morass, whilst the high winds also caused a large umount of damage amongst the temporary piers and wharves erected by the Japanese at Lao-Shan Bay. One more than one occasion the main pier, used for the landing of stores and material, was wrecked and carried away by the high seas. The water of the bay shoaled very gradually, and ships were compelled to anchor nearly a mile out in the roadstead, whilst everybody and everything had to be ferried ashore in big junks and lighters. In a high S. E. wind these were unable to remain in the bay, and had to seek shelter under the lee of an island some distance away, so that the process of disembarkation was intermittent and consequently slow. This was the more serious as the Japanese 11" and 12" howitzers, together with their ammunition had not been landed when the weather broke. Then too the heavy rains prevented the setting of the concrete platforms which were being prepared for the siege guns and howitzers, causing a further delay. The change in the weather was annoying and totally unexpected, for, as a rule, practically no rain falls in N. China during the last quarter of the year.

On the night of the 18th—19th October S90 slipped out of Tsing-Tao, an evasion which caused a little mild excitement, as it was on the 19th that the last portion of the British contingent (450 men of the 36th Sikhs) was leaving Tientsin for the front. It was said the Germans had intercepted a message, which they had managed to decipher, containing the order for the detachment to start, and S90 was despatched to try and cut off the transport. En-route, however, she came suddenly upon a Japanese battleship, which she succeeded in torpedoing, but she was so close, that the explosion opened her seams, and her crew were forced to beach her, thus finally putting an end to her career.

The Siege of Tsing-Tao.

On the 21st October the position of affairs was roughly as follows. The Germans had retired within the shelter of the line of redoubts and were confining their efforts to heavy but distant shell fire. The Japanese outposts had pushed forward, and extended completely across the peninsula from sea to sea, along a series of low ridges about a mile from the German redoubts. The progress of the operations up to the date may be summed up by remarking that the Japanese had practically been able to advance at their leisure, unimpeded by the enemy. There had been, it is true, skirmishes, but in no case was there any strenuous resistance offered. Once driven back to the line of redoubts, very little effort was made by the enemy to hinder the construction of trenches. They fired away large quantities of ammunition, but with totally incommensurate results. It is said that on one night 2000 shells were counted falling in a small area near the British trenches. They appeared all along to trust more to physical means of delay, to wit mines, obstacles, the destruction of bridges &c. than to vigorous measures such as counter attacks or sorties. Only on one occasion did they resort to this last, when they made a night attack on a portion of the outpost line. For some unknown reason, however, they advanced through the Tsing-Tao defences with lighted torches, with the not unnatural result that they were repulsed by the Japanese, and lost about 150 men killed.

On the 21st October the half battalion 36th Sikhs disembarked at Lao-Shan Bay. As, however, the vessel brought in addition to the troops large quantities of ordnance stores and rations the detachment was delayed till the following evening in unloading and stacking the same in the various depots. The delay proved disastrous, as had the regiment been able to march on the 22nd, it would have got over the worst bit of road before the breaking of the storm mentioned below. As it was, orders were issued to march on the morning of the 23rd to Pulee, but during the night a typhoon burst over the hills, and at dawn the half battalion found itself bivouacked on two small and rapidly disappearing islands, surround-

ed by water that in places was waist deep. The only thing to be done was to move everything as hastily as possible to the slopes of a hill about $1\frac{1}{2}$ miles away, and hope for a cessation of the rain and a gleam of sunshine. The Base Commandant, a Japanese Colonel, had selected the spot for the bivouac with a view to facilitating the march, and it was distinctly unlucky that it should incidentally have been the spot into which the whole of the surface drainage of the surrounding country should have been directed. The rain cleared about midday, and the 36th marched soon after 10 a. m. on the 24th.

The transport consisted of Chinese carts, hired locally to which mules were harnessed tandem fashion with string, and rotten string at that. (N. B.—A. necessity for any field force in China is an unlimited supply of strong new rope.) It was unfortunate that about six weeks prior to the outbreak of war, it having been decided gradually to reduce the garrison in N. China, orders were issued for the sale of 150 or 200 mules then in charge of the S and T Officer of the N. China Command. These animals, properly broken and trained as they were, would have been invaluable during the operations. Pulee was only about 7 miles away, but the road had been badly cut up by the passage of transport and troops, whilst the heavy rain of the 23rd had turned it into a canal. A great deal of delay was anticipated, but progress of at least a mile an hour was expected. This was an underestimate, and the detachment did not reach bivouac before 8 p. m. A strong rear guard and a strong escort to the carts had been detailed, but before the column had covered two miles it had lost all semblance of formation. The men had to sling arms and manhandle the carts along. The road got worse and worse, and of course, as they tired, the wretched mules, as often as not up to their bellies in mud, could do less and less. The rotten semblance of harness snapped on the least provocation, and, even when it held, more than once the wheels of the carts got so firmly embedded, that the bodies were wrenched off the axle trees and went skating along the liquid mud, till their weight sank them too deep

The Siege of Tsing-Tao.

for further progress. Frequently carts had to be entirely unloaded, and the contents carried by hand for two or three hundred yards, and even so it was with the utmost difficulty that the empty carts could be dragged through the sticky wet clay. Fortunately at Pulee the transport officer managed to secure a number of Chinese wheelbarrows, and thus to considerably reduce the loads. These wheelbarrows were of the greatest assistance, and there is little doubt they are a most efficient form of transport. Drawn by one man and pushed by another they get along at a great pace over every sort of fairly level country, and can take a load of about 350 lbs. They were much used by the Japanese for the conveyance of sick and wounded men.

Litsun was reached on the evening of the 26th, when orders were received to march at 8 a. m. the following morning and to send one double company up into the outposts to relieve a company of the S. W. Borderers, the remaining double company and machine gun section to be in reserve about $1\frac{1}{4}$ miles in rear. For the next two days the reserve was chiefly employed in building dressing stations, collecting and bringing up material for overhead cover, and other similar fatigues, whilst the outposts, resting by day, employed the night in strengthening their position and improving communications. On the 30th the reserves were pushed up half a mile nearer the front, an operation not without its dangers, as everything had to be carried up by the men, across an open space on the brow of a hill, which was every now and again liberally plastered with shrapnel. A communication trench had been dug to reduce the danger, but even so it was very exposed. A brigade of Japanese artillery was concealed in a nullah hard by, and it seems probable that this had been discovered by the German monoplane, whose pilot shewed the greatest skill and daring. At any rate, at intervals during the day the German guns used to be turned on to this point, and fifty or sixty shells would burst in rapid succession sweeping the crest line and the adjoining slopes. On the same evening the reserve companies were sent up into the outposts at dark to assist

in completing the trenches at the 1st position of assault (British portion shewn Z-Y on the 4" map) the outpost companies moving forward about 500 yards to commence the 2nd position of assault X-W.

The pattern of trench dug was standing, 3' deep 3' wide with a parapet 18" high. In the forward face of the trench recesses were dug, roofed over, and made splinterproof to give overhead cover to the troops occupying them by day, but there was neither time nor material to loophole them, and fire, had it been necessary, would have had to be delivered over the top of the parapet. Enfilade and localization of shell bursts were provided for in the usual manner by traverses every ten or twelve yards. Every effort was made to conceal the parapet by covering it with the tendrils of the sweet potato vine, but on that smooth glacis-like slope concealment was a practical impossibility, and the parapets, hidden though they were, must have stood out like lines ruled on a bit of paper.

As noted above work on the trenches was done only at night, and throughout the time it was carried on, the Tsing-Tao defences were like a Crystal Palace fireworks display. Powerful searchlights from each redoubt used to sweep the ground at intervals, and a lavish use was made of rockets and star shell. Of these the rocket was the most unpleasant. Apart from the not remote danger of being struck by the case, the rockets used to light up a considerable area for a very appreciable time. So far as the searchlight was concerned, the men used merely to stand still as the ray swept over them, and, as no result in the way of fire followed, one may assume that the observers with the searchlights were unable to distinguish the working parties. Star shell were too transitory in their light to cause any uneasiness, but if a rocket burst over the trench everybody at once threw themselves flat on the ground till the light had died out. For the first night or two, at all events among the Indian troops it was difficult to get much work out of the men, as they were so taken up with watching the various lights. Low suppressed murmurs of admiration could be

heard when a particularly brilliant rocket would turn night temporarily into day. So little did they realize what was before them, that on one occasion an Indian officer approached his D.C. Commander with the request that he might be permitted to take a file of men and go and capture the man with the 'buttee,' this being his name for the searchlight mounted on No II redoubt. At intervals there would be heavy bursts of rifle and machine gun (Maxim and pom-pom) fire, but it was mostly scattered at random over the hillside and ineffective. Similarly every now and again there would be an outburst of shellfire, but equally without result.

On the morning of the 31st October the Japanese opened the bombardment at about 7 a. m. Before 8 a. m. the tanks of the Standard Oil, and the Asiatic Petroleum Company, hard by the Commercial harbour, were on fire. This was not due to the investing artillery, and it seems probable that the Germans had fired them in the hope that the thick black smoke from the burning oil would interfere with the Japanese observation of fire. The hope must have been grievously disappointed as a steady S. E. wind got up, which carried the smoke well out to sea. All the Japanese batteries made use of indirect fire from carefully concealed positions. Observation was carried out from a captive balloon, which the Germans made several abortive attempts to destroy, and from hidden stations on the crest lines of neighbouring hills. These stations were connected by telephone with the batteries, and the whole linked up with the G. O. C. Artillery. Whilst on the subject it may be noted that similarly every fire trench was connected by telephone with the Brigadier, and each Brigade with Divisional and Army Head Quarters. Scarcely had the first sods of a trench been turned when a telephone was installed. So far as could be seen no attempt was made to utilize visual signalling, but then there was very little opportunity to observe the Japanese infantry at work. The telephone was thick and well insulated, a great deal stronger than the pattern used in the Indian army. As far as possible it

was kept overhead on trees and light poles, but where it ran along the ground it was most conspicuous, a real advantage, as it was not so liable to damage by being trodden underfoot. The first day the Japanese confined their attentions mostly to the permanent works with considerable success. By midday Iltis was a heap of ruins, and took no further part in the operations. From the point where the writer was, it was impossible to see what other damage was done. On the whole the Germans replied very little, though it is true that in the afternoon they woke up a bit, and did their best to destroy a battery which was in position a few hundred yards East of the nullahs occupied by the British reserve. They were using high explosive shell, and burst several fairly close, but were totally unable to silence the battery. The local, or perhaps more correctly capricious, effect of these shell was very noticeable. On one occasion a shell burst alongside two officers standing together. One was wounded but the other was unhurt though less than two yards away. A second instance may be of interest. Two sepoy of the 36th were lying asleep in a shelter and a shell burst inside it. One man's head was blown off, but the other man was totally uninjured. The casualties on our side were very few. Perhaps a dozen cases came down to a dressing station near the reserve, which may be taken as a fair average for all.

On the night of the 1st November the position was as under:—The Japanese right attack which faced the enemy's defences from the North shore of the peninsula up to a point 150 yards S. E of No 1 redoubt, were about 1200 yards from the German trenches. They were about 300 yards behind the British contingent as they had come across rock, and had not made so much headway as the remainder of the troops. The British contingent—36th Sikhs right, S. W. Borderers left—formed the right central attack, and were directed upon a portion of the trenches between No's I and II redoubts, the line of advance being against a conspicuous house in the village of Tai-Tung-Chen. The

The Siege of Tsing-Tao.

Japanese left central attack prolonged the line of the S. W. Borderers, and was intended to deal with Nos II and III redoubts and the intervening trench. To the left attack was allotted the remainder of the front down to the southern shore of the peninsula. On the morning of the 2nd November, the author, being in the outpost line, had the opportunity of studying the portion of the enemy's front to be attacked by the British. It was a cul-de-sac, a kind of blunted lunette only a re-entrant instead of a salient. Directly an advance was made from our trenches it came under a cross fire from I and II redoubts. These also flanked the connecting line of entrenchment immediately in front, so that if the position was obstinately held and there was no reason to suppose it would not be, the attack would be enfiladed from both flanks just at the critical moment that it reached the line of wire entanglement, covering the enemy's trenches.

That an obstinate defence might be anticipated, since the strength of the garrison was ample for the area to be held, may be calculated from the facts enumerated below. The defensive front of the line of redoubts was not more than $2\frac{1}{2}$ miles, and it was known that at the commencement of the siege the garrison consisted of between 5000 and 7000 men. If we put it at its lowest figure, and allow for 1000 casualties, the enemy should still have been able to muster 4000 rifles. The estimate of casualties is a high one, if we remember that the enemy were on the defensive in carefully prepared works. These they had had ample time to strengthen after the declaration of war, an opportunity they had by no means neglected. Still taking 4000 rifles as the figure, if half the number be deducted for the garrisons of the permanent works and the sea forts, there should still have been enough for roughly one rifle to every two yards of the front line of defence. Actually there were probably still larger numbers available, and we should not be far wrong in calculating that there were quite enough men to allow one man per yard for the defence after deducting the numbers required for the permanent works as mentioned

above. Incidentally, if we may believe the *Tageblatt*, orders had been issued by the Kaiser that the place was to be defended to the last man and the last horse, and German letters to the China newspapers might have given us cause to tremble had we not known that these were written with the object of impressing the Chinese.

On the evening of the 2nd November, orders were issued that another fire trench V-U was to be dug 50 yards from the right bank of the Hai-Po Ho, about 500 yards from the enemy's trenches, or in other words under close rifle fire. A fairly heavy casualty list was expected, but as a matter of fact in spite of the usual firework display, the only man hit that night in the British forces was one of the 36th Sikhs who was hit or rather grazed on the wrist by a rifle bullet. Later on, one of the men in the supports had a narrow escape. He was lying asleep in a nullah, and was awakened by a violent blow in the region of the waist belt. He had in his belt a bone handled knife and a copper coin. The knife was broken into bits, and the coin turned into a sort of cup, but he was undamaged, his skin not being even bruised. On the 3rd November the Germans seemed to realize the fact that the Allied trenches were getting a bit close, for through glasses they could be seen putting up white aiming posts. The ball opened at dusk, just as the working parties were collecting in a nullah which cut the British front in two. There were about a dozen officers collected there, and one of the Sikh companies was falling in near the mouth, when a shell burst in line with the group. Fortunately it was about 15 or 20 yards to the right and no one was touched, but it gave an inkling that work would not be quite so undisturbed as it had been on previous nights. Hitherto the Germans had never opened fire on us much before 9 p.m. The troops got down to the line of the new fire trench without casualties, and then a field battery opened. Some 20 or 30 shells passed straight above their heads, but luckily though the enemy had got the direction they had not got the range,

and the shells burst harmlessly about 60 yards in rear. The rifle and machine gun fire was a bit heavier but almost as ineffective as before, though the 36th Sikhs had two men killed and two British officers and two men wounded.

On the night of the 4th November the line V-U was abandoned, as it was impossible to make a trench that could be utilised, owing to the waterlogged condition of the soil, which prevented a depth of more than two feet being obtained. In fact it was found that the trench had merely served as a drain, and the water percolating from the surrounding fields had filled it brimfull, and undermined the parapet and also the parados. Instructions had been given to erect this last along the full length of the entrenchment to protect the occupants in the event of premature bursts of Japanese shells. The British force therefore crossed to the left bank of the river, and commenced entrenching on the line T-S. This was actually on the top of a retaining wall which formed the revetment of the counterscarp of the sunken ditch referred to in the description given under the heading 'Fire trenches and Obstacles' above.

It may seem strange that the enemy made no attempt to destroy this last trench, which was in such close proximity to their lines, but possibly their supineness may be attributed to the accuracy of the Japanese fire. Their artillery from the commencement of the bombardment on the 31st had continued to pound the whole of the entrenched area forcing the Germans to remain under cover throughout the day. On the night of the 5th work was continued on the line T—S, and resulted in the heaviest casualties of the siege to the British contingent. Fire was opened on the working parties from No. II redoubt with more accuracy than usual, causing about 10 casualties amongst the S. W. Borderers. They replied to the fire, and it is open to doubt if their action was wise, as the flashes of their rifles enabled the enemy to locate exactly their position, and the Borderers were finally ordered to withdraw after a further loss of 35 men killed and wounded. On the other hand it may

be fairly argued that the enemy had already located them, and that their casualties would have been heavier had the fire not been returned. The only man capable of forming a judgment on this point was the man in command at the spot. One the night of the 6th the British contingent was ordered to move up and occupy the line T—S. Hitherto they had been occupying X—W. Officers' patrols which had to thread their way through the wire entanglement were sent out to ascertain if the German trenches were held, and they were found to be so. It was apparently the intention of the Commander-in-Chief to order a general assault at dawn, but between 3 and 4 a.m. the Japanese left central attack secured No. III redoubt with practically no opposition. Shortly afterwards the left central and right attacks simultaneously captured No's. I and II redoubts, losing about 50 men over the former, and as dawn broke the white flag was seen to be flying from the Signal station on Diederich's Hill and from the redoubts which still remained in the hands of the Germans.

The cost of the capture of Tsing-Tao to the Anglo-Japanese forces was approximately 2,000 casualties, inclusive of sick, which cannot be considered high. Of these a large number occurred owing to the fact that for some time the Japanese were inclined to billet their troops in the numerous Chinese villages. Whether the Chinese conveyed information to the Germans or not is doubtful; certainly it is the case that villages so occupied were almost invariably subjected to a heavy shell fire. Similarly for five days the village of Litsun was heavily bombarded by a gun, the shell of which, noticeable for a heavy rumbling sound in the air, was christened by the British soldier 'the Litsun express.' The shells would fall in and around the village at the rate of about one every two minutes for two or three hours on end and on several occasions our convoys parked at night behind the village had narrow escapes from the fire. At the end of five days the village was in ruins, but otherwise no damage had been done.

The Siege of Tsing-Tao.

The German defence was weak throughout. Judging from the effect of their fire, the taking of ranges and the provision of ranging marks as laid down in our Military Engineering had been entirely neglected. To sum up, a wrong spirit was noticeable in the conduct of the defence. Throughout it was passive to the last degree, and the enemy appear to have fallen into the error against which we are warned in the first chapter of the Manual to which reference has already been made. There it is laid down that 'Field Fortification must always be regarded as a means to an end, and not as an end in itself.' The Germans made full use of physical and scientific means of defence. All the latest devices and engines of modern science were at their disposal, and little fault can be found with the siting or construction of their trenches, but it would seem that this being done, those responsible for the defence considered they had done all that was necessary. They appeared to be afraid to make use of the human element at their disposal. All through from the weak opposition offered to the Japanese landing up to the final surrender it was noticeable that the enemy were apparently thinking more of making good their line of retreat than their line of resistance. For instance the low hills above Lao-Shan Bay offered a means of hindering the Japanese landing which would scarcely have been neglected by an enterprising foe. Certainly the tribes on the N. W. Frontier of India would have caused them to pay dearly before they made good their footing. In saying this it is not forgotten that the landing was assisted by the guns of the fleet, but there was such perfect natural cover in the folds of the hills, that it is more than doubtful if the ships could have inflicted any considerable damage on a force concealed within them. There is no wish to suggest any lack of courage on the part of the Germans; rather the weakness of the defence is probably to be attributed to the fact that the great mass of the garrison consisted of reservists, whose knowledge of China, her people, and their language, will after the war, so Germany hopes, be a consi-

derable asset in rebuilding her lost commerce in the Far East. It is more than likely that the Governor, Admiral Meyer von Waldeck thought with reason, that there was more advantage to Germany in saving the lives of these men, than in throwing them away on a hopeless defence. This seems to be the most likely solution as, despite the Iron Cross bestowed on von Waldeck by the Kaiser, it is impossible to consider the defence of Tsing-Tao a resolute one. In addition to what has been stated above, this is proved by the facts that when the white flag was hoisted, there was no lack of either provisions or ammunition in the place, whilst over 4,000 men surrendered to the Allied forces, of whom more than two thirds were unwounded.

Perhaps in conclusion a few words on our Allies may not be amiss. A point especially noticeable is the thoroughness in all their preparations for war. No doubt they knew China and the paucity of local resources, but still it was remarkable how almost simultaneously with the landing of their troops, they put ashore materials for building a light railway, temporary shelters, piers &c. So rapidly were repairs effected that it would seem as though they had spare parts present for every portion, no matter how minute, of the military machine. In less than six hours after the cessation of a storm that had wrecked their pier, a new structure was in position and work in full swing. Mention has been made of the efficiency of their artillery fire control, and the effectiveness of the fire is no less worthy of remark, as was evidenced by the state of the forts and redoubts after the surrender. After all that has been written on the Russo-Japanese war there is no need to lay stress on the courage or self-devotion of their troops, but it may be noted that Tsing-Tao was not wanting in instances of their cool daring. One case in especial I may mention, where an officer's patrol succeeded on the night of the 1st November in crawling through the wire entanglement, and actually penetrating No. III redoubt. Their appearance startled the garrison, who retired hastily under the impression it was an attack in

force. Unfortunately by the time the intelligence reached the O. C. left central attack, the Germans had rallied and reinforced the garrison, so that the daring patrol, had in their turn to retire. Had Japanese troops been near enough there is little doubt that the fort would have fallen into the Allied hands that night. Their light two wheeled transport carts, suitable for either animal or man draught, were favourably commented on in their Manchurian campaign against Russia, and in a country like China, where, as I have said, roads are practically non-existent, are admirable. The service, however, would doubtless be improved if more care and attention was paid by the drivers to the well-being of the draught animals. Occasions were not infrequent, when trains might be seen packed, with loaded carts, and ponies standing between the shafts. Still this is a fault by no means unknown in other armies. In spite of the difficulty presented by the language bar they were delightful to work with, once they succeeded in differentiating between friend and foe. Once or twice soon after the arrival of the British contingent, there were instances of British patrols being fired on by the Japanese outposts, but the mistake, though regrettable was natural and scarcely blameworthy. It is a mistake that has occurred in more homogeneous forces than a mixture of Japanese, British, and Indian troops.



In conversation with some of their officers, surprise was not infrequently expressed by them regarding the large numbers of prisoners taken on both sides in Europe. They used to lay stress on the fact that the Japanese soldier would infinitely rather commit suicide than surrender to the enemy. Their attitude on this subject appeared to closely resemble that of the old Romans, who used to force recovered prisoners of their own troops to march unarmed, behind the captives, in the General's triumph through the streets of Rome. They could not understand the attitude of Western thought towards suicide. Perhaps the worst fault of the Japanese soldier, in non-commissioned ranks, is his appalling carelessness in dealing with explosives. After the fall of Tsing-Tao, parties used to be sent out to col-

lect live shell, unexploded hand grenades, &c., that were strewn about the countryside, and to bring them in for safe storage, These they used to dump into the bottom of a cart without any precautions, and the cart would then be taken across the roughest of country, at a gallop as likely as not, with fused 30 centimetre shells rattling together like so many peas. It was not surprising that fatal accidents were numerous.

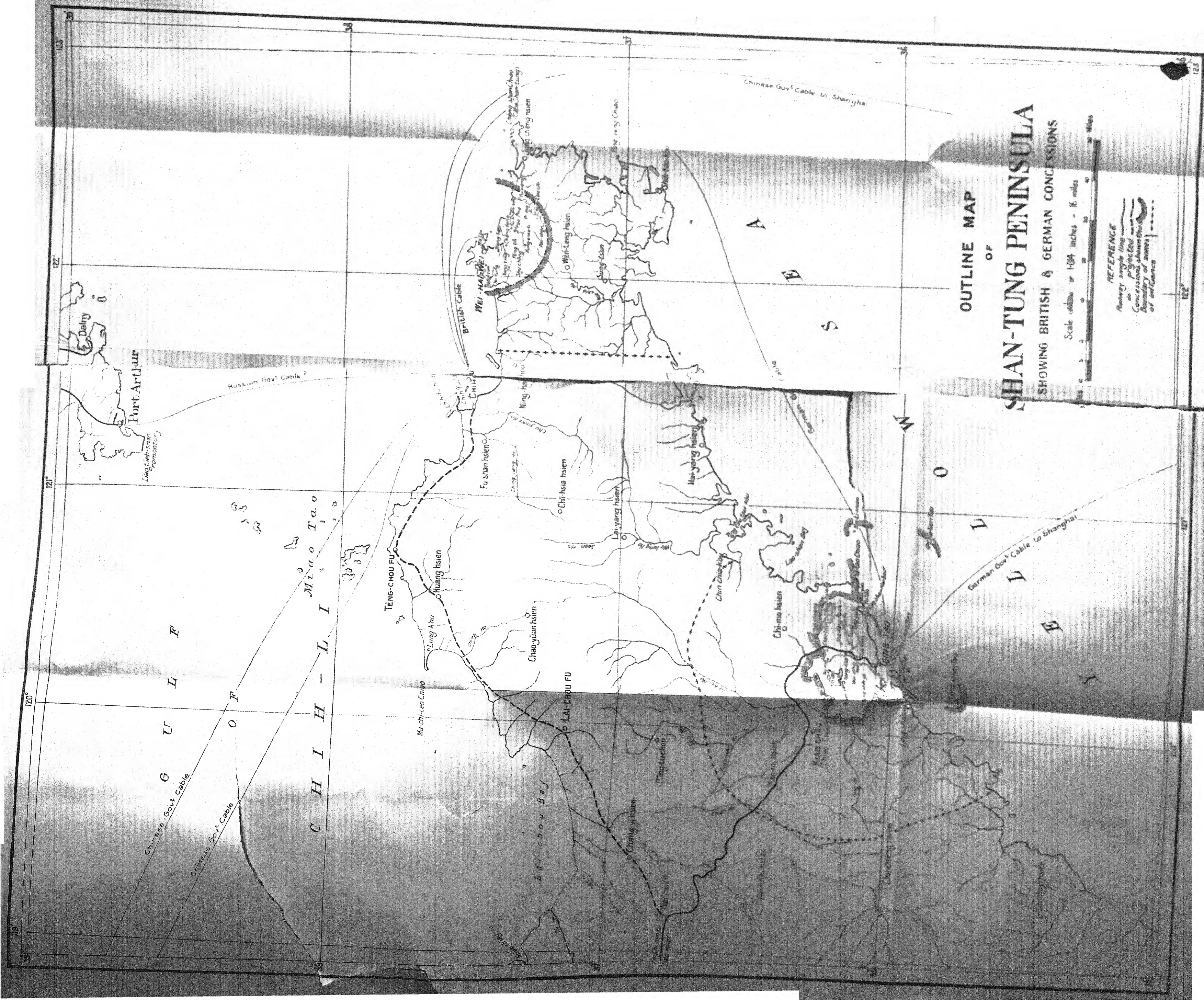
The whole spirit of their training is devoted to getting near enough to use the bayonet, and certainly far more attention was paid to rendering each individual soldier proficient in the use of that arm than used to be the case in the Indian army. To sum up, the rank and file are deficient in no soldierly virtue, and if the discipline of their troops and the successful way in which all details of the siege were carried through, be any criterion, their officers appear to leave little to be desired in either efficiency or military skill.

TSING - TAU
(CH'ING - TAO)
AND SURROUNDING COUNTRY

REFERENCE

Railway (single line) —————
Roads fit for wheeled artillery ————
Footpaths - - - - -
Dry ditches ~~~~~
European houses 
Chinese houses 
Wire entanglement XXXXXX
Contours are at 10 metric intervals with dotted contours at 5 metric intervals. 10 metres has been taken as equal to 32 feet.
Heights and depths shown in feet.





OUTLINE MAP
OF
SHAN-TUNG PENINSULA
SHOWING BRITISH & GERMAN CONCESSIONS

Scale 1:100,000 or 1:100,000 inches = 16 miles

REFERENCE
Railway single line
do double line
Concessions shown by
Boundary of concessions

Infantry Machine Guns of the Indian Establishment.

BY

LIEUT. G. A. R. SPAIN, 103RD MAHRATTA LIGHT INFANTRY.

Lift up your heads! Oh you hardly used machine gun subalterns, lift up your heads, look your Colonels in the face and say, if such be your natures, "I told you so." For you are invaluable, you have said so all along, you have protested in vain that the machine gun is the weapon of the future, that you can produce more fire effect than fifty men and use up about one twentieth of the space.

Your Colonel has smiled, or growled, according to the state of his temper, but in any case he has treated you with the contempt, which in his opinion, you justly deserve. He has refused you oil to clean with, paint to paint with, dubbin to dub with, and inflicted a thousand other inconveniences upon you; in fact he has looked upon the machine gun section as a necessary evil, the outcome of some deranged and disordered brain, he endures you because he must, but he will not be worried with you. Your "Toys" are unreliable, they may go off or they may not, "Don't talk nonsense, my boy," he says, "I have seen them at field firing before you were born, either they jam at the most critical moment or they make such an infernal din that I cannot hear myself speak; a sheer waste of ammunition, nothing more, and at manœuvres too, you must needs beat that d—d drum in positions utterly impossible on active service." We've suffered it my friends, you and I, we've suffered it because we must, it is not good to argue with your Colonel; and now after it all, the War Office, in its "Notes on the War," tells' us that we

are *invaluable*, and a truer word was never spoken. We are, in fact, the walls against which the companies may put their backs and fight.

Having then, at last established the fact that we are well worthy of consideration, let us turn to ourselves and see in what way we require considering, for we are, let us not shirk it, very very far from efficient at the present; we have done our best, but it has been a bad best indeed. We have had no assistance from those who might have helped us; we have had to make shift to do with what the good government has been pleased to give us, we have had no one to cry our troubles aloud; we have, in short, no organization. We must be organized, not reorganized, for as yet we never have been organized.

Let us begin at the beginning. The maxim machine gun is one of the most intricate little weapons in the army; treated with care and with consideration, it will fire anything up to fire hundred and fifty rounds a minute for you; mishandled in the slightest degree, it will, in all probability, not fire at all. Most of us could quote more than one instance of whole companies being annihilated because a machine gun jammed at the critical moment, through mishandling.

This then is one point established, we must have men who know their work inside out for handling these guns; it takes, as a rule, from eighteen months to two years to make a machine gunner of any efficiency.

Now we ask by whom, and by what standards are these men to be trained? At once you reply, "By the machine gun officer." And by what standards? "Read your Infantry training." It is all so simple and easy, isn't it?

Who, pray, is this machine gun officer, that he is considered entitled to train men in the use, tactical handling and general care of one of the most intricate and indispensable weapons of our Army? Who is he indeed! In nine cases out of ten, a subaltern of four or five years service, who has probably done a two weeks machine gun course

at some musketry class, and read the few pages of Infantry Training dealing so glibly with the subject. He is handed his two guns, his men, his mules and his harness and that is the end. If he is keen, he looks about for a book on the subject, he reads the one or two there are, gleans a little insight into his ignorance and prays for a manual of machine gun training; but alas there is not such a thing in existence!

If he isn't keen, and there are few inducements to make him so, he lets things go, his men are inefficient, his mules thin, what matter, no one is interested, his guns jam at his annual course. Well, they are bad guns; again nobody is interested and back they go to arsenal. How many sad and sorrowful examples could the Ordnance Department give us on that head.

This is no insinuation that the machine gun officer is a slacker, as a rule he is not; the gun has a fascination for him, if he is at all of a mechanical turn of mind, otherwise he probably takes an interest in his mules instead; but take his duties altogether,—tactical handling, drill, care of gun, animals and harness,—he is sadly inefficient; he must be, and worst of all he has no one to set him right. He is not as the gunner subaltern, watched over with a careful eye by a Major and a Captain. Men with experience and training in the management of the arms they use, who can advise him and instruct him in his duties and set him right if, or rather, when he makes mistakes.

No, this unfortunate individual must carry on alone, and carry on he does, day after day, mismanaging his mules, maltreating his guns, mutilating his harness, dinning the most ghastly errors in tactical handling into his men, with no one to supervise his work or point out his errors, until one day, Lo! he gets sent on field service, and he is a lucky machine gun officer indeed who comes out with his two guns intact and a whole skin.

This is our second point established, we must have someone to train and to supervise the section officer; but there is no one. The Colonel of the regiment is much too

Infantry Machine Guns.

busy, and besides, it is years since he has seen a machine gun nearer than ten yards from him, he knows nothing about them and doesn't want to, as we have already said, he isn't interested.

Ah! you say, the boy is talking nonsense, doesn't know his subject, has probably never heard of the Brigade Machine gun officer! Indeed, this would be well within the bounds of possibility, though, as a matter of fact, we have, at any rate most of us have, heard of him and read of him, but seldom, if ever, have we seen him. Oh! machine gun officers, was ever more futile makeshift, to overcome a crying need with,—“No expense to be incurred.”

“When two or more sections of machine guns are brigaded, they will act as a unit, under the command of the Brigade machine gun officer.” Thus says our Infantry Training; some of us, mark you, have never seen this officer; how can the unfortunate man be expected, I had written “hope,” but I am sure he does not hope, to control two or three sections of machine guns under fire, or anywhere else for that matter, when he has in all probability never seen, either the officers or men on parade before, or, if he has done so, it has been once or twice or possibly a dozen times during the training season; it is not his fault, he has his own company to train, his own work to do in fact, and this is not his own work.

Have we not had it dinned and dinned again into our heads that to be efficient we must drill, drill, drill, without it we are useless; to hark back again to our War Office circular it tells us, too, that we must be trained, every man of us, to the highest point of efficiency; can this in any way be possible when our guiding light, who is in all probability going to lead us into battle, is an officer, neither we nor our men, have seen a dozen times in the year; we do not know him, we do not know his word of command, and worst of all, we have had no opportunity of efficiently learning the drill he will ask us to carry out.

Let us have our Brigade machine gun officer, heaven knows we want him, but let us have him to ourselves, let us see him daily on parade, let us get to know him and his ideas, and let us have him by us, to correct those awful tactical crimes which we commit with such glorious sang froid and let us call him not the Brigade machine gun officer, but Capt X Commanding A or No I, or what you will, machine gun battery.

There the secret is out, the crime committed, let us put our machine guns on more or less the same footing as batteries of Artillery. That is what it all leads up to, and surely this must be the one and only sound solution to the problem before us. Also let us give our machine gunners a manual of their own, something they can appeal to when in doubt, something on which to base their training, and last, but not least, something which they may pull out of their pockets, turn up and point to, saying "There, Sir" when, on occasion, they may be in trouble over some moot question. Infantry training touches the subject, it is true, but only touches it, and there are depths in the training and handling of machine guns, which as yet, have scarcely been dreamed of in our Army.

Now let us consider this question. Have we a sufficient proportion of machine guns to the infantry battalions with our armies; that is, two per battalion? The answer is not far to seek, the examples of the present war give it to us indisputably, and it is decidedly and convincingly, No. Both in defence and in attack, mismanged even, as they at present are and must be in many cases, machine guns have proved themselves to be invaluable.

As proof of this many, if not all, battalions in Europe and elsewhere have already been issued with a third and sometimes even a fourth machine gun.

We contend, then, that the proportion should be three guns to every one battalion instead of two.

Now, let us see how we may set about the organization of these three guns per battalion on, more or less, the same footing as artillery batteries and so, reach the solu-

Infantry Machine Guns.

tion of the problem. To each gun we require, as at present, six mules, plus two mules for the section reserve ammunition, and these mules should always be with their guns, and not have to be sent for from a transport depot as at present, with the odds well in favour of their never turning up at all; for the handling of the gun and care of the mules, one Sergeant, one Corporal and eight men are essential, the sergeant to handle his gun in action, the corporal to attend to the all important question of ammunition supply, so now we have, gun, one sergeant, one corporal, eight men and eight mules.

Let us group three of these guns into one section and in charge of the section put a subaltern. Let us, then, take two of these sections of three guns each, and with apologies to the Royal Regiment of Artillery, call this unit a machine gun battery, and in charge of it put a Captain, with a Sergeant Major to assist him. Once again, let us take two of these batteries of six guns; brigade them together under a Major, and place the machine gun Brigade, thus formed, under the direct control of the Infantry Brigadier and it would seem that our organization is complete. We could well do with our Divisional machine gun commander and our Inspector General of machine guns, but that is perhaps carrying the organization a little further than is absolutely necessary for the moment, though, if appointments to this corps are, as they should be, a permanency, something of the sort would become a necessity. A diagram of the scheme is attached.

Let us now see what crime we have committed, firstly at any rate we have achieved our object, we have got section officers to supervise the men and officers to supervise the section officers; the Infantry Brigade has still got its machine guns, in the proportion of three per regiment. Only, and surely this is an advantage, he has got them all directly under his hand, he has got one man at least in his Brigade, the officer commanding the machine gun Brigade, who can tell him, with authority, what his machine guns are capable of doing or not doing, he knows they are effi-

ently trained and properly cared for, he can see them at any time, he knows exactly where they are and why they are there.

But, you say, very often these guns are required in sections, to support battalions in the attack, in many cases the fire of six guns would never be required, neither could you conceal them, when a section would very probably be entirely hidden from view, granted all this, but surely the difficulty is really no difficulty at all; let the Brigadier order his machine gun commander to detach one section or two sections, to support such and such a battalion, if occasion requires it; remember under this organisation he has still got a machine gun section per regiment; let him detach one battery, to cover such and such a flank, or let him keep his whole machine gun Brigade concentrated, under his hand, as a reserve until required, capable at a moments notice of carrying out his every order, ready to deliver a fire of some six thousand rounds a minute with almost perfect accuracy.

How let us seek what a very different aspect the present arrangement, for it is nothing more, presents. Firstly the Brigadier never or seldom sees his machine guns at all, he does not take them into consideration in all probability; to him they are merely part of one of his regiments; or suppose he does consider them, to whom does he go for information concerning the machine guns of his Brigade. The Brigade machine gun officer. But, the Brigade machine gun officer knows next to nothing about it, he has been busy training his company, doing his musketry course, and a thousand other things, he has had no possible chance of efficiently training or knowing anything of the machine guns of the Brigade, quite possibly one regiment, or two, or even all four may be in different stations. What can the Brigadier do now, he may ask Colonel so and so how his machine guns are getting on, Colonel so and so invariably, will reply, "very well indeed, thank you sir," the Brigadier says, "Good," and that is the end. He has no confidence, and rightly, in his machine guns, either acting in Brigade or otherwise.

Infantry Machine Guns.

The regimental machine gun officer continues to commit his screaming errors, the mules remain thin, the guns continue to receive ill treatment, and there is no one, absolutely no one, to say "Hold my boy, not so, but so should this be carried out."

The crying shame, the pity of it! We see in our minds eye the picture we would have,—twelve spick and span little guns, ninty-six mules, one hundred and twenty N. C. O's, and men, four Subalterns and two Captains; surely a command, worthy of any major in our Army, surely something he and his officers would work for, something they and there men would be proud of, and proud to belong to! Then we come back to earth and reality again. Two badly treated guns, twelve miserable mules, commanded by an officer who knows not whither he is going. Yet with it all, even as they are, these little weapons are admittedly invaluable. What could they not be made were our picture to come true.

There are many flaws in the argument, it is true; what, for instance, is to become of the divisional pioneer machine gun sections, what of the British service and Indian Army, what of the officers, the pay, and the promotion? One cannot attempt to discuss these details here, the necessary data is not to hand but, they could unquestionably be overcome.

The scheme is a large one, undoubtedly it would require a lot of time, and a good deal of money to carry it through, but, Oh influential General! Oh Colonel on the Staff! we have done our duty, we have proved our worth, can we not, at last, look to you, the omnipotent, to lift up your voices in our cause, to help us to attain to that degree of efficiency to which we know so well that we are capable of rising.

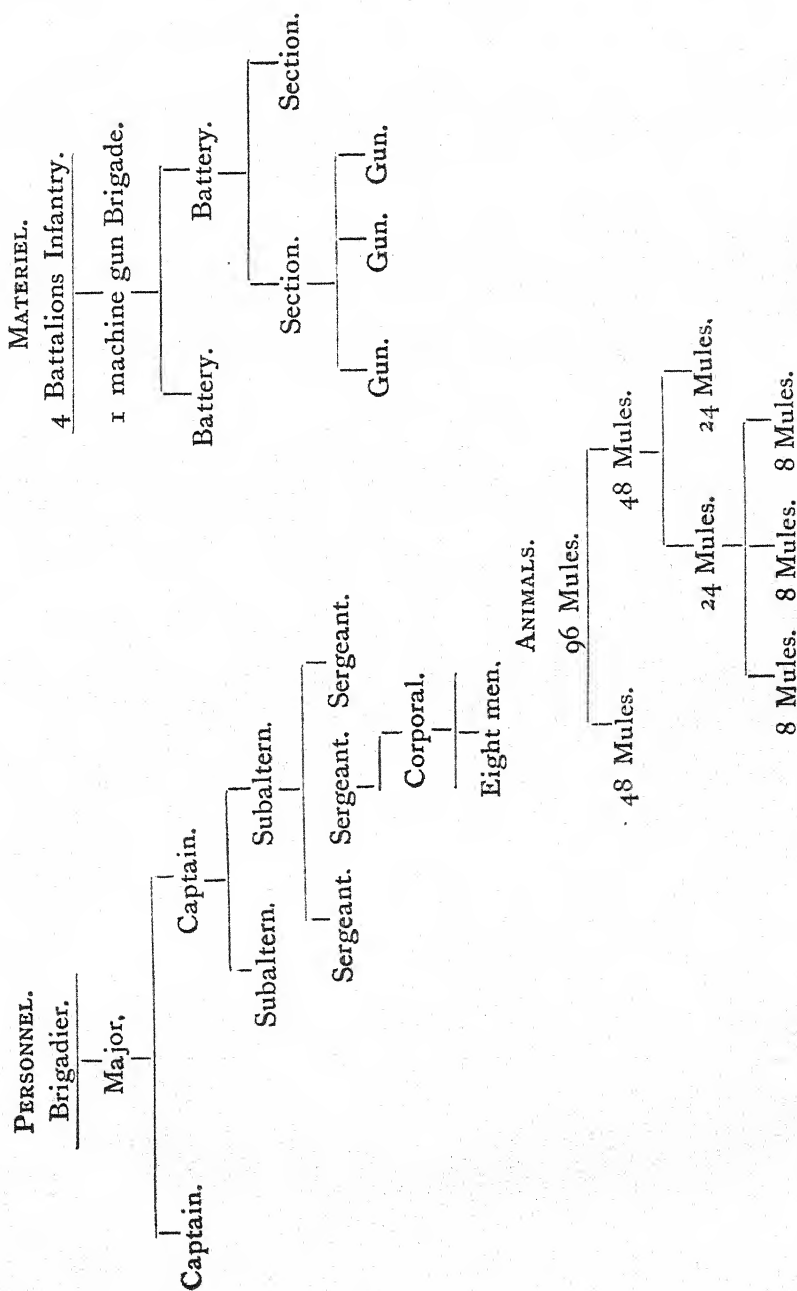
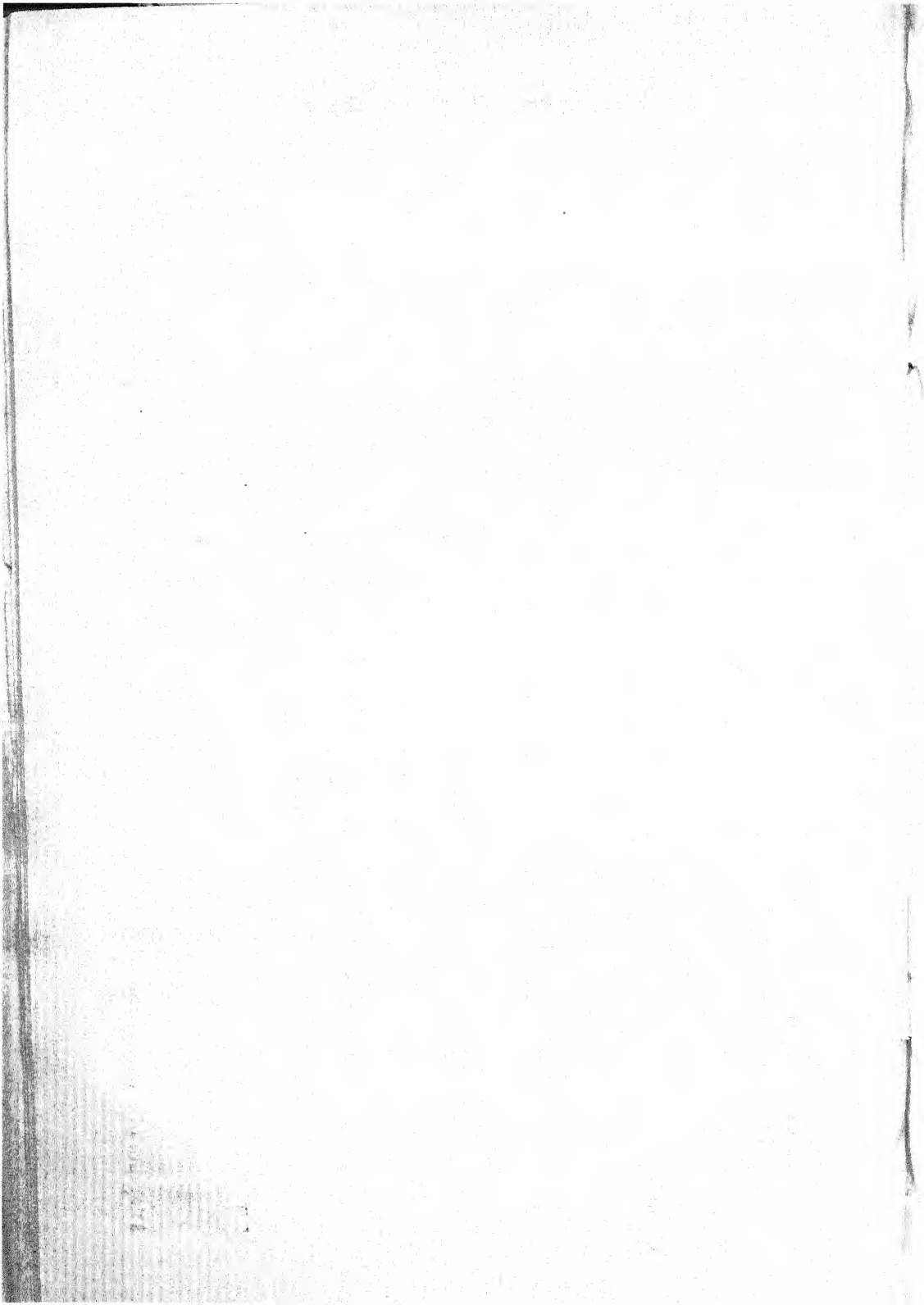


Diagram of a machine gun Brigade showing numbers of men, guns, and animals in the various formations.



Some Notes on Explosives.

BY

MAJOR C. E. VINES, R. A.

In the following article I have endeavoured to explain, in plain language and without the use of chemical symbols or equations, some of the principles underlying the action of a few of the more important service explosives. My excuse for so doing is that the service books on the subject, namely the treatise on Service Explosives and the treatise on Ammunition, while most useful for Ordnance Officers and others to refer to, are somewhat heavy reading for anyone requiring general information. The one bristles with technical details concerning manufacture and the other with minute descriptions of packages and labels.

An explosion is merely a very rapid burning or combustion, and combustion may be defined as the chemical union of some inflammable material with oxygen. Combustion differs from other examples of chemical union in that it is attended with a great development of energy. This energy usually manifests itself in the form of light and heat. When we light a fire or candle we are merely raising a combustible material to that temperature at which its chemical union with the oxygen of the air takes place. The heat produced by the combustion is sufficient to maintain the temperature of the adjacent mass at the ignition point and so, the process once started, continues of itself. This is a property peculiar to combustibles. The burning of carbon in the form of charcoal is an instance of slow combustion. If burnt in oxygen the action is more rapid owing to the oxygen being no longer diluted by the inert nitrogen of the air. If again the charcoal is finely pulverized it will burn still more rapidly in oxygen

emitting a most dazzling light. The reason is obvious; by pulverizing the charcoal the surface in contact with the oxygen has been greatly increased. In each case the chemical action is the same; the carbon and oxygen unite to form carbon dioxide and, it should be noted, the volume of carbon dioxide produced is exactly equal to the volume of oxygen consumed. Now instead of using the oxygen of the air the powdered charcoal can be mixed with some substance rich in oxygen and so loosely combined with the oxygen that it will furnish oxygen as readily as the atmosphere and in a vastly more concentrated form. Saltpetre or potassium nitrate is such a substance and, if a little sulphur is added to facilitate the kindling of the charcoal, we have a mixture familiar to everyone as gunpowder.

The burning of gunpowder does not materially differ from ordinary combustion except in the fact that the oxygen is derived from the saltpetre instead of from the air.*

Now when charcoal burns in air, as already stated, the volume of gas produced is the same as the volume of oxygen consumed. But in gunpowder, owing to the oxygen, being concentrated in a solid substance the gaseous products occupy nearly 300 times the volume of the powder used. As gunpowder burns rapidly this sudden production of gas will, if the powder is confined, give rise to an enormous pressure. Moreover the heat produced by the combustion still further increases the pressure.

Starting with the slow combustion of charcoal in air we have arrived at the comparatively rapid combustion of gunpowder. We will now go a step further and consider the explosion of nitroglycerine.

*Owing to the presence of other elements besides carbon and oxygen the action is not so simple as before. Carbon dioxide is still the chief gaseous product but in addition carbon monoxide is formed, nitrogen is set free and a solid residue consisting of potassium carbonate, potassium sulphate and potassium sulphide is left.

Nitroglycerine is produced by the action of strong nitric acid on glycerine—that clear oily liquid which we have all eaten for honey. Sulphuric acid is used along with the nitric acid but its function is merely to remove the water formed during the reaction and to keep the nitric acid concentrated. Nitroglycerine resembles glycerine itself very closely; it is, however, poisonous, causing headache and sometimes sickness when handled or inhaled. A liquid is obviously inconvenient to use for explosive purposes, consequently, nitroglycerine is usually mixed with some inert powder which sucks it up like a sponge and renders it safer to handle. Dynamite is such a mixture.

If, say, a pound of dynamite is placed on a stone slab and ignited in an appropriate manner the stone will be shattered into a thousand fragments. A pound of gunpowder placed on a similar slab and fired will merely puff off and leave a black mark on the stone.

Why then is the dynamite so much more violent in its action? The chemical action is very similar to that of the burning of gunpowder.* The difference lies in the fact that, while gunpowder is a mixture, nitroglycerine is a chemical compound. In the former the carbon and oxygen atoms, although lying side by side are in different molecules whereas, in the nitroglycerine, they are in different parts of the same molecule.†

A molecule of nitroglycerine has a definite structure and when it explodes the atoms of which it is composed merely undergo a rearrangement. The combustion in fact takes place within the molecule. This fact is very clearly set forth in Cooke's New Chemistry as follows:—

“In gunpowder the grains of charcoal and nitre, (saltpetre) although very small, have a sensible magnitude,

* Carbon burns to carbon dioxide and nitrogen is liberated. In addition nitroglycerine contains hydrogen and its combustion produces steam. It should be noted that all the products are gaseous, no solid residue is left.

† A molecule may be defined as the smallest mass in which the qualities of a substance inhere.

and consist each of many thousand, if not million, molecules. The chemical union of the oxygen of the nitre with the carbon atoms of the charcoal can take place only on the surface of the charcoal-grains; the first layer of molecules must be consumed before the second can be reached, and so on. Hence the process, although very rapid, must take a sensible time. In nitroglycerine, on the other hand, the two sets of atoms, so far from being in different grains, are in one and the same molecule, and the internal combustion is essentially instantaneous."

A further cause of the more violent action given by nitroglycerine is the fact that it yields fully 900 times its volume of gas as against the 300 volumes produced by the combustion of gunpowder. Owing then to the almost instantaneous liberation of this large volume of gas there is not sufficient time for the air to be lifted and the stone slab is shattered. The air, in fact, acts as so much tamping material.

Guncotton, familiar to all soldiers owing to its use in the service for demolitions and for filling mines and torpedo heads, is of the same nature as nitroglycerine in that it is a chemical compound and not a mixture. It is prepared by the action of nitric acid on cotton waste or cellulose, its chemical name being trinitro-cellulose. Sulphuric acid is used along with the nitric acid for the same reasons as it was employed in the preparation of nitroglycerine.

And now we come to a most remarkable fact. Our service propellant, cordite, is composed almost entirely of nitroglycerine and guncotton. How is it then that cordite does not shatter to pieces the rifles and guns in which it is fired? To answer this it is necessary to study the manufacture of cordite.

The guncotton and nitroglycerine are dissolved in a common solvent called acetone which converts them into a gelatinous or colloidal state without any chemical change. The acetone is sufficiently volatile to leave the colloid mass at ordinary temperatures and the cordite thus formed is so impervious that it will only burn on the surface; combus-

tion proceeding layer by layer until the whole mass is consumed. The secret, then, lies in converting the mixture of nitroglycerine and guncotton into a condition absolutely devoid of all porosity.

Cordite also contains a small quantity of mineral jelly or vaseline which acts as a lubricant, regulates the explosive-ness and improves the stability of the product.

When describing the explosion of dynamite the words "ignited in an appropriate manner" were used. In order to insure the violent action described the explosion must be started by a sudden concussion. This sudden concussion is obtained by firing a small quantity of fulminate of mercury in contact with the dynamite. Similarly guncotton, when used for demolitions, must be ignited by means of fulminate of mercury. If lighted with a flame it will only burn rapidly. On the other hand to insure guncotton burning in layers it must be gelatinized. The use of cartridges of ungelatinized guncotton in the Austrian Field Guns in 1862 resulted in serious explosions.

It is thus evident that the means of ignition and the physical condition of an explosive have a most marked effect on the rate of burning. The differences in the rapidity of burning give rise to the division of explosives into:—

- I. Low explosives or propellants; those which burn on the surface only and so give progressive or controlled explosions, and,
- II. High explosives or detonators in which the action takes place instantaneously throughout the mass.

It should, however, be clearly understood that there is no definite line of demarkation between a high and low explosive. By varying the means of ignition and physical condition one and the same substance can be made to act either as a detonator or propellant. Colonel Bethell in his book "Modern Guns and Gunnery", has a happy way of explaining the difference as follows:—"Detonating substances are useless as propellants, since the force is generated so rapidly as to expend itself on destroying substances in contact with it, instead of projecting them to a distance. In the

Some Notes on Explosives.

same way, it will be found difficult, for instance, to close an open door by a sudden blow. A violent kick might break a panel and yet hardly move the door, while a steady push with the finger would close it at once."

This steady push is obtained in a gun or rifle by making the cordite of such a size that it goes on burning until the shell or bullet has almost reached the muzzle. This in a rifle a thin thread of cordite is employed, while, in a 12-inch gun, where the shell has much further to travel before the muzzle is reached, a cord nearly half an inch in diameter is used.

In the days of black powder, in order to reduce the rate of burning, powder for use in guns was moulded and pressed into large prisons. In this dense or close grained form it would only burn on the surface. There is however a limitation to this process; when high pressures are reached the hot gases penetrate into the mass and the burning is no longer confined to the surface.

Owing to the greater volume of gas and the higher temperature produced by the explosion of cordite it is about three and a half times as powerful as gunpowder. In spite of this, owing to the ease with which its rate of burning can be regulated, comparatively low and better maintained pressures are given by cordite.

It will be noticed that as a cord burns the surface gradually becomes smaller and smaller with the result that less and less gas is evolved. With a tube, while the outer surface becomes smaller and smaller, the inner surface becomes bigger and bigger, hence the pressure is better maintained when this form is used. The Mark VII. 303-inch ammunition is filled with tubular cordite.

The rate of burning of cordite also depends on the pressure. Thus in the air it burns quite quietly, in fact, it is not until a pressure of half a ton per square inch is reached that explosion proper commences. For this reason it cannot be used for blank charges of guns. As there is no projectile to confine the cordite and cause a rise of pressure it would burn slowly and be thrown out of the

muzzle only partially consumed. In .303-inch blank ammunition the mouth of the case is crimped in order to confine the cordite and cause a rise of pressure. The occasional weak reports and the presence of unconsumed cordite in the bore show that sufficient pressure is not always obtained to cause a proper explosion.

Another advantage of cordite is its smokelessness, due to the products of combustion being gaseous. With gunpowder more than half the products are solid.

Although cordite is much more powerful than gunpowder, is smokeless, is not affected by damp, is safer to handle and although its combustion is easily controlled, it must not be supposed that all the advantage lies with cordite. The exceedingly high temperature produced by its explosion causes great erosion of the bore of guns. So much so that it has been found necessary to introduce a Modified "D" * form of cordite known as "Cordite M. D." This form contains less nitroglycerine and does not produce so high a temperature. Its use increases the life of a gun threefold, but the life is still much shorter than in the days of black powder. With small arms very much greater care is necessary in cleaning to prevent corrosion than when gunpowder is used. Another disadvantage is the great effect variations in the temperature of cordite before firing have on the muzzle velocity and pressure. For this reason it is desirable to keep cordite charges at an even temperature as possible.

Although cordite ignites at a lower temperature than gunpowder in order to insure regular ignition instantaneously throughout the charge and to prevent hangfires and misfires, it is necessary to use a small "priming" of gunpowder.

To revert for a moment to guncotton. It should be noted that guncotton possesses a property which makes it peculiarly suitable for military purposes. When wetted it becomes quite unflammable, but can still be detonated by using a small "primer" or initiative charge of the dry

* Capital "D" as this shows how the initials M. D. were arrived at.

material. This allows of wet guncotton being stored for any length of time in hermetically sealed cases without any risk of explosion by fire. On the other hand it is unsuitable for commercial use in mines and confined spaces owing to carbon monoxide, a very poisonous gas, being one of the chief products of combustion. And now we will pass on to the consideration of another explosive compound.

By the action of strong nitric acid on phenol, or carbolic acid a pale yellow crystalline solid known as trinitrophenol or picric acid is obtained. Picric acid melts at a comparatively low temperature and on subsequently solidifying assumes a dense form. In this cast form it is known as lyddite and is not, as once stated by the "Daily Mail", a mineral found at Lydd. Lyddite is used for filling shell and grenades; it can be detonated by substances chemically related to it such as picric powder, a mixture of 43 parts of ammonium picrate and 57 parts of Saltpetre.

Lyddite is peculiarly adopted for filling shell. In the first place it can be detonated without resource to that dangerous substance, fulminate of mercury and secondly as melted picric acid it can readily be poured into shell. Great care has to be taken to prevent lyddite coming in contact with metallic oxides, because picrates, which are far more sensitive to percussion and friction than picric acid, are liable to be formed. For this reason shell are coated inside with a hard brown varnish, and a special paint containing no lead is used externally. Otherwise lyddite is comparatively safe 'in fact, picric acid was, for many years, before its explosive properties were known, used as a colouring matter. The preparation of picric acid by the action of nitric acid on phenol is both wasteful and dangerous so, on a manufacturing scale, phenol sulphonic acid is first obtained by the action of sulphuric acid on phenol and afterwards picric acid by boiling the sulphonic acid with dilute nitric acid.

Of late years an explosive called trinitrotoluol or trotyl* and conveniently referred to as T. N. T. has come to the

*Also known as trinitroluene, trinitromethylbenzene, tolite trillite, trinol, tritone or trotol.

front. Not only does it bid fair to oust guncotton both for demolitions and for filling mines and torpedo heads, but it also threatens to supplant lyddite as a shell and grenade filler. T. N. T. a light yellow crystalline substance, is obtained by the nitration of toluene, a coal tar derivative, much in the same way as nitroglycerine is obtained by the nitration of glycerine. It is far less sensitive to shock and friction than wet guncotton or lyddite. It does not form dangerous metallic oxides like picric acid. It does not deteriorate in store, nor has it to be kept in hermetically sealed packages like wet guncotton, in fact it is often 'packed' in an electrolytically deposited skin of copper. In contact with flame, it first melts and then ignites with difficulty and finally burns quietly. It is non-poisonous and does not stain the skin.

From the above it is evident that, as far as safety and keeping qualities are concerned T. N. T. is immensurably superior to both wet guncotton and lyddite.

With regard to explosive effect while T. N. T. is slightly less powerful than lyddite, it is, bulk for bulk, more powerful than wet guncotton.

It has a higher density than wet guncotton, consequently in a given space, such as the war head of a torpedo, a greater weight can be employed or, if it is desired to use the same weight, the centre of explosion can be brought nearer the objective.

The universal projectile or combined shrapnel and high explosive shell has been rendered possible by the introduction of T. N. T. In addition to the ordinary black powder bursting charge in the base there is a separate head containing T. N. T. and the bullets, moreover, are embedded in T. N. T. instead of resin. A special time and percussion fuze has to be used. When set as a time fuze, the T. N. T. in the body does not detonate but merely acts as a smoke producer and the head goes on and detonates on impact, materially assisting in the observation of fire. When set to act on percussion the T. N. T. in both head and body detonates on impact and is nearly as effective as a high explosive shell.

Some Notes on Explosives.

It should be noted that it would be quite impossible to use lyddite in this manner as, in contact with the shrapnel bullets, lead picrate would be formed, a substance extremely sensitive to shock. This is however leading me somewhat beyond the scope of this article and into the domain of ammunition and a halt must be cried before I stray further.

Translations from Russian Newspapers.

"Novoye Vremya."

(21st November 1914.)

The question of the Dardanelles is dealt with in the leading articles. Commencing with comments upon the change of public opinion in Britain as exemplified by certain references to Turkey in a speech by Lloyd George, the writer proceeds to demand that this old-standing question be solved in accordance with the dictates of common sense. Common sense can only indicate that the control both of Bosphorus and Dardanelles should be vested in Russia.

It is pleaded that within the last three years the Dardanelles have been closed three times. This severing of Russian communication with the Mediterranean is both humiliating and injurious. Any Power into whose charge the Dardanelles might be given would be able similarly to exclude Russia from the Mediterranean, not only in time of war, but also when Russia is comfortably at peace.

The diplomatic fiction of neutrality has been rudely shattered. Neutrality only exists as long as it is supported by sufficient military force. The neutrality of Belgium has been destroyed, the neutrality of the Suez Canal exists not by virtue of grandiloquent phrases, but owing to the naval and military forces of Britain detailed for its defence. The Vandals of Berlin have wrecked diplomatic romanticism, and any proposal for the neutrality of the Dardanelles would meet neither with sympathy nor belief in Russia. If the neutrality of the Dardanelles were declared, the actual control of the passage from the Black sea to the Mediterranean would be vested in the Power to whom the shores of the Straits would belong. If the Straits are in possession of Turkey, the old trouble continues and danger of trouble in the Near East is by no means diminished. Both doors of the Russian Sea should be in Russian control. Such is the only rational solution of the Near Eastern question—a solution which threatens no injury to any of the Mediterranean Powers.

(1st December 1914.)

THE WAR.

It is reported from London that the campaign against the Turks is causing some disquietude, as it will have to be a more serious matter than was supposed at first. That the advance on Egypt is by no means merely a demonstration is shewn by the fact that Izat Pasha has an army of 76,000, according to Amsterdam intelligence.

The leading article deals with the action of the smaller Balkan Kingdoms. It states that the success of the Allies is the only guarantee to these Kingdoms of their independence and of the realisation of their ambitions. Were the success of the Duplice a possible contingency, its only result could be that the smaller States of the Balkans would fall into a position of mere dependence as vassals of the Berlin and Vienna Governments. At present there is no doubt that some of these States have afforded valuable assistance to the Germans by admitting through their territory contraband of war destined for the use of Turkey. This is due in great measure to the success of German diplomacy. In several States German princes are ruling, and German influence has been increased by the establishment of German schools *in partibus infidelium*. But ties of dynastic relationship have at times to be sacrificed to the good of the country. Such bonds could not prevent the collision of Greece and Roumania with Bulgaria, nor hinder the declaration of war between Germany and Britain. This fact of the German connection is the usual explanation of the action of these states. It no doubt contains an element of truth, but the activity of German diplomacy in establishing schools and commercial undertakings, is a more important factor.

At present the sphere of diplomacy has been reduced to its narrowest limits. The decision lies with the army, and only a decisive victory can bring to nought the machinations of German diplomacy.

The London correspondent of the *Novoe Vremya* in No. 13898 of 2nd December (N. S.) says that in London it is

believed that a non-ratified treaty between Bulgaria and Turkey exists. In view of the fact that Bulgaria hesitates to let Turkish troops cross her frontier towards Soloon, it is understood that Bulgaria herself intends to declare war. On very good grounds it is believed that about a month ago the Bulgarian ambassador in Athens asked the Greek Premier Venezelos what Greece would think if Bulgaria took back Adrianople? Venezelos answered that Greece would view with sympathy the occupation by Bulgaria of the whole of Thrace as far as the line Enos-Media. On the 25th (N. S.) November the Porte made new proposals, as yet unanswered, to Bulgaria. The Porte proposed the cession of a part of Thrace under certain conditions.

(5th December 1914.)

In a letter from Teheran the following occurs:—

“Oh banks of the River Rhine! We have seen you purple with blood, for over you was stretched the sword of retaliation. And this will befall you once again and we shall hear the weeping of Berlin, notwithstanding the fact that that town is now held in honour.”

This is the literal translation of the 221 st. verse of the book *Kitab-i-Akdes*, *i. e.*, the sacred book of gospels of the followers of the doctrine of Babism, composed by Bek Alla, the continuer of the work of Ali Mahomet Baba, the founder of this latest religion of the East, and which appeared in the beginning of the 70th year of the last century shortly after the Franco-Prussian war.

This prophecy made forty years ago is apparently about to be fulfilled. At any rate the numerous followers of this doctrine who live under a ban in Persia, are firmly convinced of this, and the latest successes of the Russian arms on the Eastern front of the theatre of war and in Turkish territory and the unrestrainable although slow pressure of the allied forces on the Western front, tend to make the remainder of the population of Persia believe in it also, although they are not believers in Bek Alla and his inspiration by God, but remain true to the prophet Mahomet and the ancient religion of Islam.

This belief in the approaching "Weeping of Berlin", is not devoid of meaning for us and for the problem of our diplomacy in Persia after the commencement of war within the limits of the Asiatic dominions of Turkey and in close proximity to the Persian frontier. It guarantees to a certain extent the security of our detachments in Azerbaijan, from an outbreak on the part of the population of the neighbouring province, of the same race and religion as the Turks, and already prepared to a certain extent for participation in the holy war declared by Turkey on us, by the preachings of the agents of Pan-Islamism and the Young Turk party and the intrigues of Austro-Hungarian diplomacy. This preparation however was brought to nought by the decisive and skilful action of our Mission and military authorities, who liquidated in one blow and at the right moment the diplomatic representations of Austro-Hungary and Turkey in Tabriz, and paralysed the activities of the German Consul-General of Azerbaijan, who still at that time saved himself from expulsion from Tabriz by taking protection under the flag of the United States. This belief will also, to an appreciable extent simplify for the Persian Government, the problem of maintenance of the neutrality, declared by her on the declaration of the Russo-Turkish War, and restrain her from all incautious steps, threatening in the future the imperial existence of Persia, and from secret actions in aid of their co-religionists waging war with Christian powers under the sacred green banner of the Prophet, owing, of course, to the absence of organised military measure.

The opening of hostilities against us on the Black Sea was as much an unexpected event for the Turkish envoy in Teheran, Asim Bey, as it was for his colleague in Petrograd. Asim Bey before occupying his present post was Minister for foreign affairs, and, as a diplomat with a wide political circle of vision and experience saw clearly that any new war by Turkey and especially a war in alliance with Germany and Austria-Hungary, would be a hopeless adventure without a chance of winning the throw of the

dice on the national imperial existence of Turkey. To this effect he expressed himself quite definitely in foreign diplomatic circles in Teheran and this diplomatic 'Credo' showed itself as the guiding principle of his policy in Persia to the commencement of the war, of his diplomatic relations with Constantinople. When first, information of the Turks firing on our coast towns in the Black Sea, was received, Asim Bey still continued not to believe in the possibility of war and quite correctly explained this treacherous attack as provocation from the side of the Germans, who had become in point of fact masters of the Turkish fleet. He did not assign to this incident, as he called it, the importance of a 'Casus Belli' nor did he lose hope that it would speedily be cleared up by apologies and suitable compensation of a monetary character. This optimism, unfortunately for his country, was not justified and now he follows the example of the Allied Austro-German diplomacy in Teheran and busies himself with spreading in the local press false information about defeats of the Powers of the Triple Entente and their allies.

England retaliated against this hostile move on the part of Turkey by placing in the Teheran newspapers the proclamation of the Viceroy of India to the country in which he promised heavy punishment to Turkey for her ingratitude to the nations of the Triple Entente, who had saved her from complete destruction by the Balkan Alliance and kept her a place in Europe. He also promised punishment for her intrigues against England in Arabia, India and Egypt. This proclamation created a great impression in Teheran. After that the newspapers printed the letter of the English minister in Teheran, Sir W. B. Townley, guaranteeing the safety of Mussulman shrines in the towns of Arabia from the military measures of the British Army, which at least did not take long to produce a quieting effect. The German Mission retaliated for the closing of the Turkish and Austro-Hungarian missions by transferring the German Mission into the Teheran fort "Chabrol." The side gates of the mission are tight shut, and the only means

of ingress is one main entrance, which is guarded by the lately instituted 'Gendarmes', in all about twenty-five men. The actual members of the mission only go out with an armed guard, and as neither the Turkish consul nor the Austro-Hungarian mission take any especial measures for protection, knowing very well that no danger threatens them in the Persian capital, the demonstrations by the German mission, its preparedness to repel any attack by force, produce a comical impression of terror at a danger called into being by a depressed imagination.

The "Reduction of the Staffs" of the Turkish and Austro-Hungarian diplomacy in Tabriz produced the correct impression and had the best results as regarding the reassuring of the population and the stopping of intrigues of foreign diplomacy against Russia. But the reason that, in Kermanshah and in Kurdistan the Turkish consulate-general does not grudge the trouble, the money or the promises made to the roving robber tribes of these provinces, up till now held in check by the presence of a Persian Cossack brigade consisting of about 430 men under Russian officers, is this,—that they wish to revenge themselves for Tabriz through the Russian Consulate-General in Kermanshah. It would be a very timely and appropriate act to forestall the Turks also in Kermanshah, and repeat here what we did with such success in Tabriz.

8th December 1914.

WE MUST CONQUER. (*continued*).

The breaking of the sluices on the Yser and the flooding of the country forms a splendid protection to Germany's right flank; so much so, that it has allowed her to transfer dozens of corps from her western to her eastern frontier, an operation in which the Anglo-French army was only too glad to assist. The Germans are now undertaking their fourth invasion of Russia, an invasion that will meet with no better success than the previous three; for it is essential for us to drive them out, not only for the sake of the actual victory, but in order to give our allies, who

still sit in their trenches and long for the battle, a chance of taking part in the war.

* * * *

Six years ago, when Servia was thirsting for war with Austria, I pointed out that Russia, with all the will in the world, within only 3 years of the Japanese war, was not in a position to help. The present situation is a very different one. We have made sufficient preparations during these six years, and now have England and France as allies, while Roumania and Italy remain neutral; but even so we proved to be less helpless than France or England to stay the capture of Belgrade and the avalanche of Austrian corps against Servia. In spite of our constant successes against Austria Hungary, we cannot move, as rapidly as we should like to, across the Carpathians, leaving in our rear about 50 German corps. We must remember that Germany has mobilized every man, which means a strength of $6\frac{1}{4}$ million soldiers, exclusive of $1\frac{1}{2}$ million volunteers, to which must be added all the Austrian troops. Even allowing their losses to amount to 3 millions, they still have five or six million armed and trained troops.

There is no reason to be frightened at this but would be dangerous to underrate it.

* * * *

Although England with her small standing army, has never promised to be in a position to develop her land strength quickly, she will be able by next spring to send to the continent an imposing force of well trained troops. There is not the slightest fear of her weakening in her determination to fight to her last drop of blood. France also has no intention of burying her splendid troops for ever in their trenches and has already commenced active operations in Alsace.

11th December 1914.

THE WAR BETWEEN ENGLAND AND TURKEY.

The latest information shews that the English force consisting of one English-Indian division and a naval brigade, is meeting with success in its operations on the

Shatt-el-Arab. The country through which the expedition is moving offers considerable difficulties to an advance, owing to the broad strip of marshes which border on the river and to the numerous ravines and canals. Luckily the present season of the year is favourable to military activity, as except during these three months of cold weather, operations are absolutely out of the question even for troops inured to a tropical climate. Throughout the whole of lower Mesopotamia, the real masters of the country are the Arab Sheikhs, whose doubtful attitude forces the invading troops to remain constantly on the alert to guard against the possibility of a sudden raid against the flank of the marching columns. Although the force is accompanied by gun boats, the distance of the caravan route from the river makes it impossible to use these in the event of a sudden attack. In ten days the English have advanced 75 verst (45 miles) from Basra and have occupied the important point of Qurna, at the junction of the Tigris and Euphrates; they have now been considerably reinforced and have been joined by a detachment of cavalry—an arm they lacked at the beginning of the operations. The whole course of the Shatt-el-Arab is in their hands, and the fact that the force has been reinforced points to the probability of a further advance up the Tigris and Euphrates valleys, especially as, the further one goes north, the healthier becomes the country. The chief caravan route in Mesopotamia runs along the Euphrates to Kerbela and Nejef; but a far better line of advance for the English is that along the Tigris valley from Qurna to Baghdad, a distance of 450 verst (300 miles). The capture of this latter town would have enormous political importance, and although the advance would take about three months and would stretch the lines of communication to a most unwieldy length, it should not be beyond the powers of the expeditionary force, which could make use of gun boats and river steamers throughout the movement.

The chief object of the English operations in Mesopotamia is to draw off troops from the contemplated expedi-

tion against Egypt, but as a matter of fact this danger has already passed, as the victorious advance of our troops across the Caucasus frontier has forced the Turks to send to oppose them its Syrian corps, which was intended for the invasion of Egypt.

17th December 1914.

Sir John French's third despatch, which we printed yesterday, deserves the closest attention. Its essential features may be summed up as follows. On the initiative of the English Commander, the expeditionary force was, with the greatest skill, thrown from the Aisne into southern Belgium to envelop the German right flank. Afterwards, again on the initiative of the British headquarters, a stream of reinforcements from England and India was deliberately poured into the district north of Ypres; that is to say, precisely that district where the Germans, as appeared later, were massing for attack.

General French was forced by the situation to take up a position out of all proportion to his relatively small numbers, even helped as they were by dismounted cavalry; but thanks to the perseverance of the British headquarters and in spite of all accepted strategical doctrines about the impossibility of a too great extension of front, the heroic conduct of the splendid English and Scotch troops triumphed over all difficulties. What these difficulties were is shewn by the fact that, at the beginning of November, four British corps were opposed to 16 German Corps; not only did they withstand their attack without yielding a foot of ground but they caused them losses exceeding two hundred thousand men.

We congratulate the British army on its glorious achievements in the battles described in Sir John French's despatch.

After a discussion of the Germano-phile tendencies of three northern neutrals, Denmark, Norway and Sweden, the article continues. In Rome, where Germany has sent her most accomplished diplomat, von Bulow, we must maintain an even keener watchfulness. Both press and parliament

are loud in their demands for a more active role in Balkan affairs, and urge the formation of a southern group of neutral powers, consisting of Roumania, Bulgaria and Greece, under the leadership of Italy. The last named power has designs, according to the Balkan press, not only on the Italian provinces of Austro-Hungary, but on Albania and even on Dalmatia. Greece lays claim to the Aegean islands and part of Asia Minor. Bulgaria—to Macedonia and eastern Thrace along the line Enos-Midia. And Roumania—to Transylvania, almost the whole of Bukovina, etc., etc.

It is worthy of remark that Italy only began to take her present keen interest in Balkan affairs after the diplomatic failure of the two Buxtons at Sofia and Bukharest, and after the absence of the results expected from Prince Trubetskoi's mission. The formation of a Balkan "block" would be very different from a Balkan alliance, and would not be likely to run counter to the interests of the Triple Entente, so long as the interests of Servia were not too openly threatened.

Italy has no desire to see the strengthening of Servian influence on the eastern shores of the Adriatic and in this she is at one with Servia's Balkan rivals. If Von Bulow does not succeed in getting the conductor's baton into his own hands, the formation of this southern "block" is possible, and, by the inclusion of Servia, might serve the cause of a lasting peace in southern Europe. But German diplomacy is a past master at sowing dissensions and misunderstandings, as was seen a hundred years ago at the congress of Vienna.

29th December, 1914.

NOTES ON THE WAR.

The estimate of the enemy's strength given in a recent number of this paper is confirmed by an article in the *Matin*. The author considers that Germany has placed in the field, not a hundred, but 73 corps, of which 25 from the active army, 33 are reserve and 15 landwehr. At the beginning of the campaign, most of these were directed on France, while the Eastern frontier was left to the Austrian.

But at the beginning of November, the position began to change, and it is now estimated by French authorities that the forces transferred from west to east consist of two active divisions, six reserve divisions, two landwehr and six cavalry (that is, 5 infantry, and three cavalry corps). So that, the total of German troops opposed to us is 5 first line corps, 14 reserve and 8 landwehr corps. It is important to note that the Germans have found it possible to bring a very large force against us; add to this, that we are also fighting nearly the whole of the Austrian army (to say nothing of the troops operating against Turkey), and it must be admitted that our theatre of operations has reached a most serious state of tension. Without going so far as to state that a greater part of the German army is acting against us than against our allies, it is clear that the centre of gravity has swung temporarily from west to east. We have never doubted the value of the operations of our splendid allies, and we wish them, equally with ourselves, every success; we should fix our thoughts on a general victory, without allowing the least shadow of doubt to come between us.

3rd January, 1915.

A few days ago the British ambassador in Teheran represented to the Persian Government the fact that several Swedish officers, instructions to the Persian Gendarmerie instead of confining themselves to their proper work were carrying out an absolutely open propaganda in favour of Germany, and were rousing the population against England and Russia. This state of affairs is fully worthy of attention. These foreign officers were invited, in accordance with the advice given by Russian and British diplomats for the foundation in Persia of a Gendarmerie. Their generous salaries are found out of funds supplied for this purpose by the Russian and English governments.

The English representative in Teheran has protested against this intolerable conduct on the part of the Swedish officers. But what is the good of a "paper" protest?

Was not a protest raised against the installation of German officers in the Turkish army? We protested without ceasing, but also without result. The present situation calls for other steps. Not verbal indignation, but actual opposition.

German, Austro-Hungarian and Turkish consulates in Tabriz were carrying on a hostile propaganda. We expressed the opinion that this state of affairs was intolerable and that we must definitely put a stop to it. We were told that any such action might hurt the feelings of neutral states, but necessity compelled us to take these steps and undoubtedly for the good of Persia.

Is it not time for the taking of those measures which show themselves to be the logical continuation of the action we took in Tabriz?

German diplomacy, and under her wing, that of Austria also, is doing its utmost to make Persia undertake the same ruinous venture, into which Turkey was drawn. The interests of Russia and of Persia herself, and also simply the interests of mankind demand that steps should be taken to put an end to this German diplomacy which is trying to even further enlarge the circle in which blood is being poured out owing to her scheming. German diplomacy recognises no international rights, and it would be absurd not to reply to it in the same coin.

Russia and England have it quite in their power to drive out of Teheran all disturbing influences, and they would not be helping the solution of one of the problems of history, if they now do not avail themselves of this opportunity.

German diplomatic and consular representatives in Persia are carrying on a war against us, and stop at no means of achieving their ends. They are perverting Persian political leaders, tribal chiefs, and the Press. In the event of their success, Persia will pronounce her own death-sentence.

In the meantime Russia and England have taken it upon themselves to guarantee the inviolability of the Persian

monarchy. Therefore the expulsion from Persia of the disturbing influences, threatening her very existence as a kingdom, appear to be not only our right, but actually, our duty.

Under these circumstances, a short shrift for these hired German seditionists is the only thing left. We must not suffer them to remain in Persia one single minute.

February 13th 1915.

THE BRITISH ARMY.

The undoubted fact that the war originated in the rivalry for world empire between Germany and England does not, of course, affect the solidarity of our relations with our ally, England is Germany's principal foe: Russia and France occupy the second place. Germany's object was not to conquer her neighbours on her eastern and western frontiers, but only to defeat them; or, if defeat was impossible, to force them to leave her free to deal with England later. This central fact, that the war is the outcome of German and English rivalry, determines the whole conduct of the campaign. The principal aim of Russia and France, as England's allies, is to contain Germany, until such time as England can put an end to that rivalry. This she cannot do with complete success by sea so long as Germany's battle fleet remains hidden away beyond reach, so the coup de grace must be given by her army on land. This, therefore, is the most important factor in the campaign, England's continental army. Neither Germany, nor indeed anyone else, thought that the formation from insignificant cadres of an army of three millions was in any way possible, although Japan did something of the same sort ten years ago, and with brilliant success. The task before England is made easier by the fact that every class of the population is deeply imbued, not only with patriotism and manliness, but with a love of exercise and sport, which are most useful factors from a military point of view, but it is none the less little short of miraculous to form an army of this size in the course of a few months.

*Russki Invalid.**22nd November 1914.*

An historical retrospect of negotiations with regard to the Dardanelles is given in this number. The article is remarkable for the fact that certain phrases are printed in large type, as being of special importance at the present time. Quotations are given from conversation between the Emperor Nicholas the First and Sir Hamilton Seymour, the British Ambassador in 1853. The Emperor is quoted as having declared that he had no wish to occupy Constantinople, but that he had still less desire to see it occupied by Britain, France or any other great Power, nor could he tolerate the idea of seeing Turkey divided up into a number of small Republics, ready refuges for all European revolutionaries. The Emperor had no objection to the British possession of Egypt and Crete, in case of Turkish collapse, as he recognised the British right to safeguard her communications with India. The writer observes that by reason of their geographical position Russia and Britain are the Powers most interested in the Eastern question. But at the present time Germany is powerless to prosecute her ambitious designs in the East without the aid of Turkey. The position is changed now, for it is Germany and not Russia that is the danger to Britain. Russia must be ready to carry out firmly the ideas of Nicholas the First, ideas rather than forego which, he declared himself ready to wage war while one hand or one man remained to him.

After a review of the various international agreements regarding the Dardanelles, the conclusion is reached that to Russia, as being the most interested in the decision, belongs the casting vote, when the fate of the Dardanelles is decided on the conclusion of the present war.

The writer concludes his article with the remark that the war must end with the humiliation of the Prussian Empire, and quotes from the Imperial Manifesto of 20th October 1914. "In common with the whole Russian people we believe that the present rash interference of Turkey in the

war will only hasten the march of circumstances fatal to her, and will open a way for the settlement of those historical Black Sea problems which her forefathers bequeathed her."

26th November 1914.

THE PERSIAN GULF.

The successful occupation of Basra by the troops from India is commented upon and special importance is attached to the town in view of its relation to the proposed Baghdad Railway on the line Constantinople—Baghdad—Basra—Koweit. This is regarded as the final blow to German pretensions in the Persian Gulf and in Asia Minor, where the Baghdad Railway was designed to form a trade route for German goods to India and the Far East, superseding the Mediterranean and Suez Canal. Notwithstanding the recent cession of shares in this line to British and French holders, German influence was practically unlimited. Twenty-five years of German enterprise has thus gone by the board. The terminal points of the line had already passed into British hands, and presumably before long the initial sections of the line, *i. e.* Skutari, and Ismid on the Sea of Marmora. "Will pass into our hands or into the hands of our allies."

CRAOW.

The following is a resumé of an article given in this number; a sketch accompanies the article.

Cracow, the chief political and administrative centre of Polish Austria, has about 80,000 inhabitants and is situated on the left bank of the Upper Vistula, about $6\frac{1}{2}$ versts ($4\frac{1}{2}$ miles) from the Russian frontier. On the direct line to Vienna, its strategic importance is obvious, and its moral value not less so. It was first fortified in 1840, but the design of the present fortifications was commenced in 1880. The present fortress has two lines of forts and a central enclosure. It is divided into 4 sections—Northern, Eastern, S-Eastern and Western. The Northern frontier between the village of Tonieh and the river Dlubin, is the most

dangerous to the occupants, as the interior of the fort is commanded by the heights just over the Russian frontier. The whole front of 8 versts (5 miles) is protected by 4 large old-time forts, (Tonieh, Marjerek, Vegrije, and Bolo-vitch—the first two being the strongest of all the forts)—1 old pattern fortification, and 10 modern rallying points and batteries. In the old fortifications there are many armoured towers with quick-firing artillery of small calibre. The line of forts is 5 versts ($3\frac{1}{2}$ miles) from the town itself, so that the latter is not safe from bombardment, especially in view of the commanding positions on the Russian frontier which is only $1\frac{1}{2}$ versts (1 mile) from the line of forts and parallel to it.

The eastern front extends for about 6 versts (4 miles) in front of the Dlubin river and is nearly 8 versts (5 miles) distant from the town. It is protected by 2 old-time forts (Krejeslav and Vandakhugel), 3 small old pattern fortifications and 4 rallying points and batteries. The left flank commands the valley of the Diubin, thus ensuring communications with the north front, which is about 2 versts ($1\frac{1}{2}$ miles) distant.

Eight versts (5 miles) to the S. W. from here is the S. E. front, protected by 2 large old pattern forts and 9 rallying points and batteries. It extends 5 versts ($3\frac{1}{2}$ miles) and is the same distance from the town, or rather from the suburb of Podgorje. It is a strong defensive position. Further south is the wooded district of Velichka, which abounds in cover and dead ground.

The interval of 11 versts ($7\frac{1}{2}$ miles) between the S. E. and W. front is held by the old fort Opatovitse and the modern one of Bodzov, both 5 versts ($3\frac{1}{2}$ miles) from the suburbs. This front in view of its weakness is comparatively weakly held.

The W. front between the Vistula and Radva forms the fortified group of Helm, consisting of one large and two small old time forts, and two modern defences. It extends about 3 versts (2 miles) and is 7 versts ($4\frac{1}{2}$ miles, distant from the suburbs. The interval between it

and the N. front, about 8 versts (5 miles) is held by the old fort of Pasternik and the modern one of Bronivitse.

11th December 1914.

THORN.

Thorn is situated on both banks of the Vistula about 15 versts (10 miles) from the Russian frontier, is surrounded at a distance of 6 to 7 versts (4 to 4½ miles) by forests. Although it forms a double tête-de-pont and a junction for the railways from Warsaw to Berlin and from Insterburg to Posen, its strategical importance is due primarily, not to this fact, since there are river crossings along the whole stretch of 150 versts (100 miles) from Thorn to the sea, but to its suitability as a strongly fortified and well equipped base for an advance into Russia. In 1870, the fortifications consisted of 9 big forts, about 3½ versts (3½ miles) from the city, of the usual German pentagon type with high parapets. These were reconstructed in 1890 and strengthened, and now form infantry redoubts; between them, there are now 7 small permanent forts of more modern design. The diameter of the fortified area is only 7½ versts (5 miles), so that the whole fortress could be raked from end to end by siege batteries placed at about 15 versts (2½ miles) distance. The desire to bring Thorn to a level with modern requirements, without resorting to a complete reconstruction, led to the development of the intermediate spaces between the forts, which are now a mass of armoured gun emplacements, infantry redoubts and trenches with Bedon shelters, while there is a similarly fortified advanced line about 2 to 2½ versts (1½ miles) to the north-east and south. The chief engineering feature consists roughly of 16 intermediate Bedon barracks for one company each. 28 Bedon magazines, 41 versts (25½ miles) of metal-led road, a narrow gauge railway, and a central keep, with the citadel of St. Jacob.

It must be admitted that the circle of fortifications is a very strong one; the fort guns are protected by Bedon cupolas and the intermediate spaces, being only about 1½

verts (1 mile) allow of mutual support by machine guns and rifle fire. So that, although Thorn is of cramped design and is therefore unsuitable as a manoeuvre fortress, it is very solidly protected against modern artillery. The artillery armament consists, according to professor Buyinitski, of a total of 1,014 guns, of which 302 are in reserve. Of this total there are 622 heavy guns—15 and 10 centimetres (5·85" and 3·9") guns, and 15 cent. (5·85") howitzers. The calibre of the remaining 392 guns is 75 millimetres (2·92") and under.

The garrison consists of 24 infantry battalions, 8 batteries and 1 battalion of sappers, making a total of about 33,000 men.

22nd December 1914.

George Pratz a correspondent of the paper "Journal" continuing as in peace time, to follow carefully the development of aeronautics in Germany, gives the following information which he succeeded in getting after the outbreak of war.

The Zeppelin factory at Friedrich Hafen on the shores of the lake of Baden is very busy turning out Zeppelins and succeeds in finishing one every three weeks; at the end of July there were ready Z, 24 and 25, during August, September and up to the 15th October the following number were put in commission? Z 26,27,28 and 29 and on the 5th November No. 30. All these are of the same type and of a capacity of 22,000 cubic metres. But it should be noticed that the time taken in testing a new dirigible is considerable, and sometimes longer than that necessary for the construction of an aerostat. The exact number of dirigibles at present on commission in Germany is impossible to state, but their numbers are nothing like as many as forty, as stated in the press. In the numbers of the Zeppelins are included also those which have long ago been destroyed; but on the other hand, there are several dirigibles of a different type. Up to the commencement of the war the numbers of those which were absolutely serviceable, did not

exceed ten; since that time there have been added 7 to 9 Zeppelins, but several have been destroyed by the Allies during the war.

As regards aeroplanes, according to rumours, the Taube type is no longer being made, because the wings obstruct the view of the observer; their powers of manoeuvre are bad and they are slow and also their lifting power is insufficient. Now they are only making, Bi-planes of the type "Aviatik" (Three days before the commencement of the war the factory was moved from Mulhausen in Alsace to Freiburg, but even here the French aviators have succeeded in bombarding it) the "Albatross" in Berlin (they make about five in a week)—L. V. G." (the Aerial Communication Company) in Johannistall near Berlin, and possibly "D.W.F." (The German Aeroplane Works).

25th December 1914.

THE BOMBARDMENT OF TOWNS.

Amongst the specialities of the present war, especially noteworthy is the frequent bombardment of undefenced towns by artillery, more especially on the Franco-German front. Not to mention the malicious destruction of Louvain, Malines, and other Belgian towns, a whole series of others have had to suffer, the excuse being that they lay within the sphere of military operations. In the list of such towns must be included Charleroi, Mons, Ypres, Lille, Soissons, Rheims, and Armentieres.

Generally speaking, the occupation of considerable towns by troops on the battle front cannot be considered advantageous: besides the fact of the possible destruction of the town and the great danger and loss to the people, it is easy for the opponent to range on to the positions occupied on the outskirts of the town; although they offer covered positions for the reserves, they also impede their movement to the firing line, which must take place on a narrow front along streets, and in deep columns, not seldom exposed to enfilade fire. Also another inconvenience is reveal-

ed in the event of unsuccess, when a retirement from the position is necessary, a column has to be formed and the retreat in this compact formation excludes all possibility of proper direction and may lead to considerable disorder.

Therefore, if in a few cases on the Far Western front the allies have had to include considerable towns in their positions (Charleroi, Mons, Ypres, Armentieres), this was done against their inclinations and owing to special circumstances, brought about by the present war: on the northern portion of our front, towns of considerable size are met with extraordinary frequency, and the great armies of modern times cannot find sufficient space for their developments in the open field and therefore are compelled in places to include towns in their dispositions.

In other instances the Germans used the fact of the proximity of towns as a reason for their bombardment (Rheims, Lille, Arras, Soissons and others). These are the reasons why so many flourishing towns of France and Belgium have been destroyed. On our front, there is more room for armies of a large size, and although the Germans even there found an excuse for gratifying their instinct for destruction, it was in a much less degree than in the far West.

25th December 1914.

**THE EXPANSION OF THE ROLE OF ARTILLERY; HEAVY ARTILLERY
IN FIELD WARFARE.**

Notwithstanding the failure, at the very beginning of the war, of several tactical principles which are now almost completely rejected, here in the military press, they are still referred to as fundamental ideas.

In every war several tactical principles, laid down in the regulations are upset.

Now, not only those actually present on the actual theatre of military operations, but everyone has to admit, that not, "only well-trained infantry alone can ensure the success of an army and of a nation." The trained infantry of all nations is good, but the very best infantry, when

alone or helped by indifferently trained artillery or cavalry, is sometimes found to be of no avail against well-trained and well-armed artillery (heavy or otherwise).

Also all must observe that artillery and infantry so closely are intimately connected on the battle-field and well remembering the principles of mutual support and aid, are striving for one common object; the fighters are not the different arms, but the commanders of detachments, armies and the higher formations; the different arms play the chief or an auxiliary role, in accordance with the object in view and the situations and not just as it pleases them, but under the direction of those commanding.

Thus we have seen the German artillery playing the leading role in one or two places and when attached to the rear-guard and accompanied by a small party of infantry as an escort in the case of a sudden attack by cavalry.

Besides, we have seen the like in the Russo-Japanese War when the Japanese in certain portions of the field, acted solely by artillery fire (11 inch), because they had used up all their infantry in an enveloping movement.

As is evident from letters of German officers, picked up on the battle-field, the Germans themselves give the credit for the capture of Antwerp to the artillery. And all our officers and lower ranks with one voice affirm that if it was not for the enemy's heavy artillery we should long ere this have reached Berlin and Vienna.

We all see and cannot dispute the advantage of allotting heavy artillery to the advance guards in the case of the Germans, and of its transport on motor lorries when the advanced and aerial reconnaissance is well organised. And can anyone dispute the advantage of being able with impunity, to bring the enemy to a halt at a distance of 10 or 12 versts, and to compel him to deploy, at the same time condemning his field artillery to inaction, and not allowing it to approach within its effective range.

Thus, when the German heavy artillery begins to sprinkle one with "coal-boxes" at a range of 10-12 versts, and

compels its opponent to deploy, this action can be countered either by heavy artillery, by manoeuvre or by night attacks.

Some sort of counter-stroke is essential, which will render the use of this arm disadvantageous and dangerous to the enemy. To this one must devote serious attention.

And how indeed can one compete with heavy artillery when you have none yourself. Generally at that point the field or light artillery is brought into action. But obviously this is not expedient, in the same way as it would not be expedient to match field-artillery with rifles. The light battery in action against the heavy—is more vulnerable than infantry and even than cavalry. Only the most daring journalists, as for instance the “special correspondents” of several non-military though quite staid and sober papers can write, that a light battery successfully engaged for two days two heavy batteries and even silenced them and almost captured them afterwards.

The feeling of irritation that the reading of such nonsense would rouse in one who has been fighting without respite with heavy artillery, and who has been almost daily under its fire or observing it, is easily to be understood. Such statements are also injurious, owing to their instilling false ideas, as for instance, that a light battery is stronger than two heavy batteries, etc.

To begin with, the shrapnel fired by light artillery are not at all fearsome to other protected light artillery and for the well-protected heavy artillery—even less so. Splinters from the “coal-boxes” literally tear the shields like cigarette paper, and even force their way through the thick tires of a cart-wheel. Even field entrenchments and also field redoubts do not protect one from “coal-boxes” and projectiles from mortars. Anyone who knows anything at all about it, would simply smile at the bare idea of a light battery engaging heavy artillery for several days, and then defeating it.

And again, the target for field-artillery is more the enemy's infantry, machine-guns and field-artillery and not heavy metal. Again, by surprise action, having approached unnoticed, till discovered by hostile aeroplanes and scouts, or from a flank,

a light battery can inflict severe blows with its shell-fire, but it must not let slip the favourable moment for retirement, as when discovered there can be no retreat.

But heavy artillery all the same is very vulnerable and may become the prey of a bold stroke at the time of its taking up a new position, or of a bold bayonet attack at night. Indeed the usual target of heavy artillery is either artillery or only compact masses (buildings or dense columns of the enemy), thin lines of infantry are for it, an unsatisfactory mark; therefore to act against it for preference, infantry are necessary if there are no heavy or mortar batteries available.

25th December 1914.

GERMAN FORTRESSES ON RUSSIAN SOIL.

German fortresses within the limits of Russia!!

This is no fable, no semi-mythical occurrence of the past, but a sad fact.....It would appear that the most fertile imagination would be unable to change the idea of the existence of a German fortress on Russian soil into actual fact; but it fell to the lot of our troops, as was stated in the paper "North Western Life", (Minsk, 29th November No. 297) to prove by bitter experience this is a fact, when they were called upon to capture such fortresses as the country mansions of "Shukla" and "Porajhnevo," which lie at a distance of 4 and 5 versts respectively from the town of Vladislav, in our frontier territory of Wirballen. The capture of these fortified posts on Russian ground (opposed to the Russians) was no easy matter. Their reduction occupied five days, from 18th—23rd October.

The fortresses of "Shukla" and "Porajhneva" were constructed by their landlord, a German, though a Russian subject, in order to be able to hold in check with the minimum expenditure of force, considerable Russian forces, and even more than that, with the idea of making this a regular "mousetrap" for them.

They are erections of a sound and permanent type, built in accordance with all the laws of modern fortification, but owing to our criminal confidence in the Germans and our happy-go-lucky system, no one took any

interest in them. Latterly, and very justly, in Russian life the remark has become prevalent that the most dangerous enemy of Russia is not the German outside Russia, but the enemy within our gates.

The following is a general description of the mansion of "Shukla."

This great country-house, owing to its arrangements of rooms and the construction of the walls, with loopholes instead of windows, somewhat in the nature of a German barracks in a fortress, was even provided with special furniture of a type something like officers camp kit.

In front of the house was prepared an immense cleared space extending for about fifteen hundred paces, and adapted, as was afterwards shown, for enfilade fire, and intersected by a series of canals, filled with water, and by artificial depressions running in the direction of the house which drew our troops simply from the habit of making use of such depressions, under the enfilade fire of machine-guns posted in the house.

At three hundred paces from this fortress mansion, a narrow, but fairly deep brook intersected the plain, forming as was afterwards shown, an artificial outlet for the water and masked by bull-rushes in which were arranged wire entanglements. This brook was formed with the intention of delaying our troops in a known well defined spot, making them form an ideal target.

On the right side of the estate, looking at the frontier, almost alongside the house itself, a park had been laid out, in front of which they had built a thick iron-concrete wall about two arshins across with a high sharp palisade, behind which there were very well made trenches and shelters, which must have been built, according to some of our officers who saw them, a considerable time before they were actually used.

Behind the house there were subterranean passages leading to a dense wood with high trees. On both sides of the house there ran, somewhat obliquely, long stone sheds,

with unusually thick walls with loopholes, and which were evidently meant for some military purpose.

To the right of the country-house "post," there was yet another farm "post" connected even in peacetime, with "Shukla" by means of a deep canal—a trench, as if for draining away of water, and in war time very easily adaptable as a means of communication or a fire-trench.

Besides what we have said above, we must point out the fact, the posts Shukla and Porajhneva, thanks to their being situated at a distance of five versts from the town of Vladislav not only kept the town itself under a murderous artillery fire, but also the plain in their front, and the river and high-road, thus preventing us from occupying the town, or moving through it into Germany.

Thus the Germans serve the Kaiser, ... and Russia; Russian "Citizenship" is apparently simply an empty word.

10th January.

HEAVY HOWITZERS.

The Italian journal "L'Esercito Italiano" gives a description of the 42 cmm. (16".5) and 28 cmm. (11") howitzers with photographs. The 28 cmm. (11") howitzer has a length of 12 calibres. Below the body of the gun are fitted a piston recoil chamber and a buffer to reduce the force of the recoil. The carriage consists of a bottom part with wheels and a platform; the bottom part can be swung round on a vertical axle for the preliminary laying of the gun. The wheels are fitted with special shoes, the invention of the Italian Colonel Vonagenti. The gun can be given an elevation of 65° by means of a semi circular cog wheel; the mechanism can be worked rapidly by one man. The extreme range of the howitzer is 10 kilometres (6.2 miles) and the culminating point of the trajectory is 4,000 metres (13,120 ft). The weight of the projectile is 340 kilos (749.5 lbs) and of the bursting charge, 18 kilos (39.7 lbs). The carriage and the howitzer itself are each carried on separate lorries.

Details of the 42 cmm. (16.5") howitzer are not obtainable, but it is believed that the weight of its projectile is 800 kilos (1763.6 lbs); it it fired off a concrete platform,

FIELD KITCHEN.

The same journal describes a field kitchen, invented by Salvator Kazularo. It consists of an iron hoop of 65 cmm. (25.5") diameter, standing on three legs 90 cmm. (35") high. Round the hoop are six small hooks and on a transverse beam, which helps to hold the hoop together, is another hook. On these hooks are hung 7 kettles, like buckets with lids; these are the Italian army kettles and cook 12 rations each. For a company of 250 men, three of these tripods are required. The weight of a tripod is 11 kilos (24 lbs). When packed up, it only takes up 60 cmm. diameter by 30 cmm. high (23.6" × 7.8") and can be carried by one man.

Russki Invalid.

14th January 1914.

THE DREAM OF THE SLAVS.

Europe has never been confronted by a more difficult problem than that awaiting her decision on the conclusion of the war. Not to speak of the difficulty of satisfying the claims of the fighting allies, Russia, England, France, Belgium and Japan, it will be necessary to maintain Slav interests against the conflicting claims of Italy, Rumania and Greece; to undertake the formation of the former kingdoms of Poland, Czechia and Greater Serbia; to confine Hungary to her ethnological boundaries; to determine the future of the purely German provinces of Austria; and to decide the question so important for Russia—the fate of Constantinople and the Dardanelles.

The future of Poland hardly comes within the scope of the present discussion, as it is purely a matter of Russian home politics; but there is no doubt that all Slavs wish heartily for a decision which will satisfy both sides.

The Czechs with their neighbours the Moravians and Slovaks, comprising altogether more than ten million Slavs, have long dreamt of deliverance from the German yoke, and the grant to them of independence is a necessary condition of a lasting peace. They should, in fact, form a rampart of the Slav world in the west. For this it is essential, firstly, that the Czechs, Slovaks and Luzhinians be welded into one kingdom; secondly that, in view of its isolated position and its small size, this new kingdom be in close touch with, and be firmly supported by the rest of the Slav world and especially by its deliverer, Russia; otherwise it will be the natural prey of Germany in the next war, some thirty years hence.

There are certain enthusiasts who demand that the future Czech kingdom be completely independent and that there be added to Bohemia that part of Austrian territory lying between Czechia and the Danube as well as part of Prussian Silesia. But this would mean that there would be six million Germans in the new kingdom as against only $10\frac{3}{4}$ million Slavs, which would result sooner or later in the certain Germanization of the whole. The new Czechia must be Slav, and must be strong; only in that case will she serve to separate southern Germany from Austria and to act as a barrier to the German advance on the Adriatic and the Balkans.

To the south are the Serbo-Khorbats and Slovinets, who also dream of deliverance from Germany, and should, in the future, form part of Greater Servia. When considering the formation of this latter state, however, there is one very important circumstance to be borne in mind. It is a well known fact that Italy lays serious claims, not only to the southern Tyrol and to Trieste and its port, but to the whole Istrian peninsula, and even to the Austrian provinces of Gorz and Gradisk, which separate Trieste from northern Italy. Except for Trieste itself, where the Italians actually predominate in numbers, all these latter provinces are indisputably Slav. Besides, Trieste, as the only good port in Austria, possesses an immense importance not only to Greater

Servia, but to the northern Slavs, especially for Czechia and even for Poland and Russia itself. The loss to the Slavs of Trieste and Istria would mean the closing to them of one of the best routes to the Near East and would plunge the newly formed Slav kingdom into very great financial and economic difficulties. The Adriatic must of course be closed against the Germans, but this could be done by allotting to Greater Servia all the country inhabited by the Slovinets and Khorbats, and by the formation of a narrow strip of Slav territory along the present Hungarian frontier between Greater Servia and Czechia. Germany must not be allowed to take a share in the break-up of the Austrian empire. The dominant opinion of the Slav world is that southern Tyrol should be given to Italy, and that the northern Tyrol and Salzburg, together with the small strip of Austrian territory along the Austro Bavarian frontier up to the river Lintz, should go to Switzerland. Thus Austria would only retain the Archduchy and northern Styria, as far Gratz. Carinthia would form a part Greater Servia. Everything depends on Russia's firmness—on her waging the war to the bitter end and on her making her voice heard in the not far-distant overtures for peace. The golden age of progress and of happiness awaits her and with her, the whole of the Slav world.

7th March. The Bosphorus and its fortifications.

The Bosphorus is 16 nautical miles in length, and on an average 1 to 2 nautical miles in breadth. Its breadth is, in detail, as follows:—

At the entrance from the Black Sea, between the Rumelian and Anatolian lighthouses, 2 miles (nautical); between the headlands Rumeli-Kavak, $6\frac{1}{2}$ cables; opposite Bugok-Dere, 2 miles (nautical); opposite Therapia, 7 cables; between Rumeli and Amatoli-Hissar, 4 cables; and at its exit into the Sea of Marmora, opposite Constantinople, 1 mile 2 cables. Its depth varies from 25 to 55 sajkens (175 to 385 ft.)

There are, on each side of the channel, several convenient creeks among which may be mentioned Ruyuk Dere, northern Therapia and the Golden Horn on the European side; and Beykoz, opposite Therapia, on the Asiatic side.

The defences of the Bosphorus stretch from the shores of the Black Sea to Therapia and Beykoz, that is, for 8 miles (nautical). The only fortifications that deserve mention are those most recently constructed or re-constructed. From north to south, there are, on the European shore, the following:—

1. Kilios—a stone fort armed with six 6 in. guns.
2. Sari Tash battery with a command of 5 to 9 sajken (35 to 63 feet); armed with two 9", one 8" and three 6" guns.
3. Rumeli-Kavak shore battery, command of $2\frac{1}{2}$ sajken ($17\frac{1}{2}$ feet); armed with two 14", two 11" and five 9" guns.
4. Teli-Tabiya—four 6" guns.
5. Kirech-Keni—four 6" guns.
6. Buyuk-Lunan (not marked on the sketch, but north of Sari-Tash)—two 9", one 8" and three 6" guns.

Of the above, only Kirech-Keni and Teli-Tabiya are on high ground, the remainder being on the shore of the strait.

The Asiatic shore has the following fortifications:—

1. Elmons—an earth work armed with field guns.
2. Phil-Burnu—command of 10 sajken (70 feet), armed with three 6" guns.
3. Anatoli-Kavak, the most powerful of all, with four 14", five 9", two 8" and one 6" gun.
4. Madjhar-Kale—two 11", three 8 and ten 6" guns.

The above gives a total of six 14", four 11", seventeen 9", nine 8", thirty-seven 6" guns, not including field guns and light quick-firers. South of the Beykoz creek, there are several old batteries, but these are of no importance.

Up to the present war there were no defences at the southern end of the Bosphorus, but it is reported that during the last few months, the Turks have been hurriedly fortifying San-Stephano, Kadi-Kiyoi and Princes Islands, and

and are arming them with guns taken from their battle-ships and from Adrianople. But as the construction of shore batteries, capable of dealing with heavy guns, is a lengthy process, and as the mounting of heavy guns requires not only abundant time, but complicated technical appliances and special structures, it is improbable that there will be anything heavier than 6" guns in these defences.

As regards the Bosphorus fortifications, all the batteries are constructed of earth or stone. There are no modern improvements in the shape of armoured cupolas or solid concrete structures.

The details given above actually refer to the state of affairs in 1913, but it is known no particular changes have taken place since. It is obvious that the principal objective of a fleet attacking from the Black Sea must be the batteries of Rumeli and Anatoli-Kavak, and of Madjhar-Kale, which are all about 4 to 5 miles (nautical) down the strait. The depth of water in the Black Sea will allow of ships standing in close to the shore, where they would themselves be sheltered from fire, and of bringing indirect fire to bear on the principal fortifications.

The channel is also protected by mines, but owing to the depth and the current (up to 6 nautical miles an hour) these are difficult to lay and especially difficult to replace.

6th December 1914.

Apropos of the declaration of neutrality by Afghanistan, an interview is published dealing with the importance of the Amir's action. The Amir occupies a special position in the Mussalman world and is recognised as the head of the Pan-Islamic movement.

From the time when the Young Turk came into power, parties were formed in Egypt and Afghanistan with the object of furthering the Pan-Islamic propaganda. The Amir was the soul of the movement and even wrote a work dealing with the possibility of a Jihad in this connection.

The Pan-Islamic Agents, generously paid by the Turkish Government, over-ran Arabia, India and Afghanistan, and

agitated energetically. The holy cities of Mecca and Karbala whither tens of thousands of Mahommedan pilgrims journey every year, were the centres of activity. The agitation was especially active in Egypt, where there existed a specially Pan-Islamic newspaper, *El-Lewa*. In Cairo the Pan-Islamists joined the Patriotic party of Khosb-al-Ummat. Extensive political reforms were demanded by the party, which soon began to ask for the return of Egypt to Turkey and the abandonment of the British occupation. In 1912 several articles appeared in the party organ, which combatted the claims of the Arabs to the restoration of the Caliphate. The activity of the Young Turks was praised, and all Arabs were invited to unite for the greater glory of Islam and the Sultan of Turkey.

This action caused dissatisfaction among the Arab community not only in Egypt but in other countries. The majority of the members left the party, and openly expressed doubt as to the possibility of a successful Pan-Islamic movement in the Mussalman world.

It is characteristic that the British enquiry revealed the fact of German participations in the actions of the Patriotic Party. One of the most learned and prominent men in Egypt, Al-Mukhdi, who is held in much respect by the Mahommedans of Arabia, India and Afghanistan, entered a public protest against the provocative action of the Patriotic party, and its instigators—the Germans.

Eventually the President of the Party, Muhamed Ferid Beg, fled from Egypt to France, and there in the columns of one French paper and of several organs of the Arabian Press, published a series of articles in which the participation of Germany in the matter of the Pan-Islamic propaganda was set forth.

After the downfall of the Patriotic Party some of its members transferred their activity from Egypt to Afghanistan. The members of the Young Turkish Party did not delay to endeavour to form closer relations with the Afghan Amir, tempting him in every way. Nevertheless, the Pan-Islamic agitation did not attain to great success even

in Afghanistan,— a fact which is now confirmed by the refusal of the Amir to participate in a "Holy War."

A telegram from Irkutsk states:—It is reported from Hankow:—Thanks to German agitation, threats of disturbance in Tibet are increasing. The Germans, by promising independence to the Tibetans, are endeavouring to incite them to attack India. Caravans with arms have been sent to Lhasa. A mysterious expedition is being organised. The Dalai Lama is enjoining peace and loyalty on the population. In Peking the German agitation in Tibet is regarded unfavourably. Its success is in causing disturbance, as an expedition would perish on account of incredible frost and snow storms now prevailing in Tibet.

15th December 1914.

The Japanese Press are discussing the question of the dispatch of Japanese troops to England.—Baron Kato of the Tokio Ministry of Foreign Affairs in a conversation with journalists, expressed his opinion as follows:—

"As regards our action against Germany in the Far East" said the Minister, "that is quite natural and is due to the necessity for Japan's taking all steps for the preservation of peace in the Far East. But why is there any necessity to send our troops to Europe? We are not interested in this, from the point of view of the country, nor from the point of view of the preservation of peace in the Far East. Besides, the dispatch of a Japanese expeditionary force, consisting of several hundred thousand men would involve tremendous expenditure which we do not wish to inflict on the Allies. How could we make good this expenditure? On this account—concluded Baron Kato—I am against the despatch of Japanese troops to Europe.

The Tokio paper "Nitsi-Nutsi" also devotes a place to this question. This question, according to the words of that paper continues to be a cause of discussion both in political and in military circles. The paper asks, by what route and on to which front should Japan send half a million troops?—On Japan, says this paper, rests the onus of preservation of peace in the Far East, and this duty

calls for all the resources of the country. In Europe, in the theatre of war, there is not so much demand for men as for food, good communications, transport and it is simply the dearth of the above which is responsible for the slowness of the development of operations. The newspaper also considers that the despatch of Japanese troops is hardly in conformity with the wishes of England and France, who already have sufficient forces at their command to destroy Germany and Austria.

THE BALKANS.

28th December 1914.

Among the neutral powers a movement has been on foot with the idea of forming a union, and has reached a climax with the meeting of the three Scandinavian kings at Malmo. Apparently negotiations are still going on between Italy, Roumania and Bulgaria, the rapid conclusion of which will lead to a union of the South European Powers, and which will be affiliated to that of the Northern Powers. Unceasingly it has been shown that on both occasions, German diplomacy has played the chief role. We have already had occasion to notice that her success is not surprising in those cases where she is working in the same direction as the national interests of the country on which she intends to exercise her influence. Without any doubt, it is to the interest of the Neutral Powers to bring about a mutual understanding with the idea of being in a stronger position when they present the national claims at the conclusion of the war. If, for the presentation of these claims, energetic action is necessary, then the actual moment of taking action depends a great deal more on the Powers that are united among themselves than on the powers that are divided among themselves. All this renders perfectly comprehensible efforts, which are being made to achieve this union, even without the supposition that Germany is exercising her influence in this direction. Germany and Austria in any case, can win nothing from such action, since the national demands of the neutral powers will be satisfied altogether at their expense.

4th March 1915.

THE BALKAN STATES.

The Dardanelles operations are being watched with the greatest anxiety by Rumania and Bulgaria who realize that, the moment the Straits are forced, they must at last make up their minds to do something in furtherance of their national ideals. Bulgaria should remember too, that, besides the Macedonian problem, which will claim her active intervention on the side of the Triple Entente, there is the question of the occupation of the Adrianople vilayet, as far as the Midia-Enos line, promised her in return for her neutrality.

Greece finds herself in a very exceptional position. She has already received a certain amount and has been promised a great deal more; but the public declaration of Russia's intention to occupy the straits and Constantinople has shewn her the impossibility of satisfying all her national aspirations. Her press, however, is firmly convinced that such a result will never be permitted, and that the straits and Constantinople will either be placed under the control of an international régime, or handed over to Greece.

Greek ideas on the subject would be of little interest to us were it not for the question as to whether it will be possible to employ her troops for the land operations—which must necessarily follow the forcing of the Dardanelles. Her opinions on another subject are, however, of greater importance. Our correspondent reports that Greece has threatened to reply to the so-called "manœuvres," of the Bulgarian army by "measures, more serious than manœuvres," and she has many times declared her intention of occupying Monastir and the southern part of Macedonia in the event of Serbia conceding to Bulgaria the same conditions as were agreed upon in 1912.

As things stand, in view of the absolute necessity of the co-operation of Bulgarian troops against Constantinople, the attitude taken up by Greece is most unfortunate from our point of view. Some time ago Bulgaria was accused of being the only bar to the intervention in the war of

Greece, and Rumania, and although subsequent events have shewn the falseness of these charges, diplomatic pressure was brought to bear on Sofia. The same pressure should now be applied at Athens. Greece must bind herself to remain quiet in the event of Bulgaria entering the vilayet of Adrianople and crossing the line Midia-Enos.

8th March.

THE DARDANELLES.

The doubts and fears entertained in Russia on the subject of Sir Edward Grey's explanation of M. Sasonoff's speech are gradually being dissipated. Thanks to the visit of the French General, Pau, to Petrograd, the conviction is growing that the operations of the allies, especially in the case of the Dardanelles, are linked together by the closest mutual support and inter-dependence. The inclusion in the allied squadron of our cruiser "Askold" is, as it were, a symbol of our cooperation in the future. General Pau's visit has not been without its effect in the neutral states of the Balkans, who are beginning to wonder whether their intervention may not come too late. Especially is this true of Bulgaria. Of course, the occupation of the Adrianople vilayet would not necessarily identify her with the Triple-Entente, but would be merely the reversal of what the Turks did in the teeth of the Conference of London, in 1913. Her enemies are sparing no efforts to discredit her by wild stories of barbarities perpetrated against Greek subjects, and by accusations that it was Bulgaria herself that cut short the negotiations for compensations from Servia, who was ready enough to make concessions asked for. But at the bottom of all this, lies the obvious and definite reluctance of Greece and Servia to hand back to Bulgaria what she, as a nation, has every right to possess, and thus to open to her a means of co-operating with our armies.

It is to hoped that our diplomacy will not fall into the mistake of crediting these stories, which are invented with special energy at the present moment in view of the necessity of a rapid and weighty decision.

9th March 1915.

ENGLAND'S PART IN THE WAR.

Nowadays, when the state of affairs in England is becoming clearer, one is lead to believe that the rumours, regarding the increasing possibility of the failure of the military measures undertaken by England, are being exaggerated by German agents, but none the less these rumours are afloat and they must be answered. For those who are inclined to think that the British troops are provided with too many comforts and are spoiled, nothing is more calculated to dissipate this illusion than to spend an hour at any spot in the trenches between Ypres and La Bassee. Neutral papers announce that the English, expecting a three years war, are in no hurry over their preparations. This is not true, for our allies, although they are prepared to fight for three years, and if necessary, for thirty years, have as their aim the subjection of German in as short a time as possible. We have heard regret expressed that the English have not brought in universal military service. The answer to this, is that if the British at the commencement of the war had brought in the military service bill, they would not have had any more men at the front than they have now. Actually England sent to France a not very large, but exceedingly well-trained army, and in doing this they did everything that France could expect from her. Following on this England sent to the Continent the reinforcements which had previously been arranged for. Great Britain has yet at her disposal a whole million, which will soon be sent. Those who do not understand why England has not yet sent this force, forget that before their dispatch, they have to be trained and armed, and all arrangements made for their supply in the field. The normal strength of Great Britain's army is known to the whole world, and when England was confronted with the problem of arming another million men or even two million, manufactures had to be arranged accordingly, and new machinery put in. This has all been done. England is doing everything that is necessary, is working day and night, and soon the field

of battle will see a new British army, which will have such resources as to be able to carry the war to the Rhine and even beyond it. We must not forget to mention the English front and the small wars that she has to carry on in different parts of the world, and also the obvious advantages which the British have owing to their safety from attack and the great resources of the empire. Germany understands how matters stand, understands better than any critics the importance of England's preparations, and makes no secret of it.

Beck.

15th March 1915.

It is stated that it is apparently the intention of the Turks not to defend Constantinople itself, in order to avert a bombardment, "Von der Goltz and Liman von Sanders are said to be advising the Turks not to resist but to transfer the capital to "Konieh pending the decision of the war on the battle fields of Europe.

Von der Goltz according to Bukharest intelligence, represented at a Council of Ministers that the forcing of the Dardanelles and the occupation of Constantinople would not mean the end of Turkey's part in the war. "The fate of Empires," said he, "will be decided on the battlefields of Europe, where Germany and her Allies will dictate the terms of peace. The transfer of the Turkish Government to Asia Minor cannot mean the cessation warlike action on the part of Turkey, more especially as the occupation of Constantinople can be but temporary."

The Grand Vizier Said Khalim Pasha, dwelt on the moral effect which evacuation of the city would have on the population, but at the same time recognised the futility of resistance. He asserted that Turkish struggles in Gallipoli would be stubborn to the last, and that the Sultan and Government would only leave the city at the very last moment.

Enver Pasha, while not openly opposing Von der Goltz, explained that resistance in the suburbs of Constantinople, where a considerable force has been concentrated, would be a necessity.

No definite decision was arrived at by the Council.

Turkestanakaya Vedomosti.

1st December 1914.

THE SIGNIFICANCE OF MESOPOTAMIA.

Turkish intervention in the war has called attention to the valley of Mesopotamia, lying between the Tigris and the Euphrates. Although Mesopotamia has fallen from her former high state of prosperity, and at present in some places offers nothing to the view save a naked wilderness, her natural resources could not vanish, and the prospect of reviving her industries and her prosperity has attracted both energy and capital. Her accessibility to the sea-going vessels of the Persian Gulf and the river craft of the Tigris and Euphrates explains the recent British activity in the neighbourhood of the Shat-el-arab.

The geographical position of Mesopotamia, between the Eastern provinces of Turkey and Western Persia, affords a point of contact between the two most important Mussalman Kingdoms in Central Asia. Till recently the paramount European influence, political and economic, in Mesopotamia and the Persian Gulf was exercised by Great Britain. But Germany has sought to establish her influence in this region, and the railway of Asia Minor with its terminal point at Baghdad on the Tigris is the result.

The strengthening of Turkish influence in Mesopotamia was entirely consonant with German aims. The inhabitants of Mesopotamia consist chiefly of Arabs, Kurds, Syrians, and Armenians. Of Turks there are practically none, a fact which was bound to reflect on the stability of Turkish rule. Owing to the absence of good communications within the district, the Turks are practically unable to enforce their sovereignty, which in the valley of the Tigris and Euphrates is merely nominal.

Another important distinguishing feature of Mesopotamia is the fact that the chief Mussalman religion is of the Shiah sect, so securely founded in Persia, and not of the Sunni, which is the Ottoman religion. Mesopotamia, with its holy towns, is the chief centre of the Shiahs, and the

cleavage between Sunni and Shiah is more acute than in other centres. This forms an additional barrier between rulers and ruled.

Great Britain has for long been in touch with Mesopotamia, and is well aware of the course of feeling in the district. Hers, according to agreement with Russia, is the paramount influence in Southern Persia, where, as in Central Persia, she has obtained coal and oil concessions from the Teheran Government, as well as permission for the building of a railway in Luristan which adjoins south Mesopotamia. All this will doubtless lighten Britain's task on the Shatt-el-Arab, and it is reasonable to suppose that she will be able to penetrate to Baghdad, and there deal a blow to the activity of the Germans. One may also hope for the appearance of British naval river craft on the rivers of Mesopotamia and the consequent easing of the difficulties of the expedition. Once the population sees that it can pin its faith to British strength, its dislike of the Turks will burst forth with renewed vigour.

These considerations show that Mesopotamia holds considerable significance in regard to present events, and we are likely to hear more of the district in the future.

26th February.

The small states of the Balkans must be having a tragic time of it at present in anticipation of the approaching fall of Constantinople, in the fate of which the interests of each one of them are bound up. The straits are important to Rumania as giving her an outlet to the open sea; to Greece they are still more important, as they form the key to the Asiatic coast of the Archipelago, which Greece claims as her rightful heritage, bequeathed to her by her ancestors. Bulgaria has, it is true, an outlet to sea, but is nevertheless economically dependent on the straits, as the main artery of the world's eastern commerce. All the states realize that the die is cast and that they must act without further delay, especially as they know full well that only those powers that have taken an active part in the war

will on its conclusion, have a say in the final settlement. The first popular movements in this direction opposed though they are by the Germano-phil sympathies of their respective governments, are already clearly visible. It is, however, especially surprising that such opposition should be met with from King Constantine, a national hero, with Russian blood in his veins, who, it was to be expected, would identify himself completely with his country at a moment so critical for the whole future of Greece.

It is now known that the strength of the Allies expeditionary force held ready at Tenedos is 100,000, exclusive of 10,000 marines—a force amply sufficient for combined naval and military action against the straits. The Turks can, by straining every nerve, concentrate not more than 3 or 4 corps on both sides of the straits, that is, on the Asiatic side and in the Gallipoli peninsular, of which the latter has been already cut off from the main land by the naval bombardment of the Bulair position and by the destruction of the Kavak bridge. It is doubtful, therefore, whether the assistance of the Greek army is really necessary, while that of their fleet would add literally nothing to the allies strength.

In view of the approaching fall of the chief defences of the straits, the Turks have already made preparations for the transfer of the government to Brussa, and it may be taken that the anticipations of the German press, that they will destroy their own capital, Constantinople, before their retirement, are entirely visionary.

Quarterly Summary of Military News and Items of Interest.

ARMY HEADQUARTERS.

Administration.—The War Office have issued instructions that units and other formations of the I.A.O. 189 Dated 26-4-15. Territorial Force will, in future, be designated 1st Line, 2nd Line, and 3rd Line, instead of Imperial Service, 1st Reserve and 2nd Reserve respectively.

The 1-1st, 1-2nd, 1-3rd, etc units will be designated 1st Line units.

The 2-1st, 2-2nd, 2-3rd, etc units will be designated 2nd Line Units.

The 3-1st, 3-2nd, 3-3rd, etc, units will be designated 3rd Line Units.

The 1st Line Divisions and Mounted Brigades, will be composed normally of 1st Line units, but they will contain 2nd Line units in cases where the first Line unit has proceeded overseas independently of its Division or Mounted Brigade.

Similarly, 2nd Line Divisions and Mounted Brigades will in some cases contain 3rd Line units.

Complimentary.—His Excellency the Commander-in-Chief has great pleasure in publishing the following message from Field-Marshal Sir John D. P. French, G.C.B., O.M., G.C. V.O., K.C.M.G., and directs that it shall be made known to all Indian Units.

The following report has been received from Lieutenant-General Sir James Willcocks, K.C.B., K.C.S.I., K.C., M.G., D.S.O. :—

All units of Indian Corps engaged in the recent fighting at Neuve Chapelle did well, and the Indian units which

specially distinguished themselves were:—

3RD (LAHORE) DIVISION.

Jullundur Brigade.

47 Sikhs.

59th Scinde Rifles (Frontier Force).

Sirhind Brigade.

1st Battalion, 4th Goorkha Rifles.

Divisional Troops.

20th and 21st Companies, 3rd Sappers and Miners.

N.B.—These include Maler Kotla Sappers, Imperial Service troops.

34th Sikh Pioneers.

Machine Gun Section, 15th Lancers (Cureton's Multanis).

7TH (MEERUT) DIVISION.

Garhwal Brigade.

1st Battalion, 39th Garhwal Rifles.

2nd Battalion, 39th Garhwal Rifles.

N.B.—This includes Tehri (Garhwal) Sappers Imperial Service Troops.

2nd Battalion, 3rd Queen Alexandra's Own Gurkha Rifles

Dehra Dun Brigade.

2nd Battalion, 2nd King Edward's Own Gurkha Rifles (the Sirmoor Rifles).

1st Battalion, 9th Goorkha Rifles.

Divisional Troops.

3rd and 4th Companies, 1st King George's Own Sappers and Miners.

107th Pioneers.

Machine Gun Section, 4th Cavalry.

The General Officer Commanding, Indian Corps, especially commends the working of the Indian Field Ambulance.

Rules regarding leave during the war.—The Government of India have approved the following rules regarding the grant of leave during the period of the war:—

I. A. O. 131, Dated

29-3-15.

1. During the period of the war the ordinary rules regarding leave and furlough, both for British and Indian ranks, are suspended.

The following arrangements are sanctioned in their place in supersession of all previous orders issued on this subject since the commencement of the war:

- (i) Leave or furlough may be granted to all ranks up to a maximum of 30 days in any one year.
- (ii) With the exceptions noted below, not more than 8 per cent of the total of (a) British Officers and (b) other ranks, trained soldiers including reservists, in any unit, may, under the orders of General Officers Commanding Divisions and Independent Brigades, be permitted to take leave at one time.

Exceptions:—In the case of units in which this 8 per cent limit, as far as British Officers are concerned, would mean that no officer could get leave, General Officers Commanding may use their discretion in allowing one British Officer to be away at a time.

General Officers Commanding may use a similar discretion as regards both officers and other ranks in the case of staff departments and services.

- (iii) Leave may be granted at any time throughout the year unless specially stopped under orders from Army Headquarters.
- (iv) Leave may be taken 30 days at one time, or in instalments.
- (v.) All British ranks must be within 48 hours' recall. In the case of Indian ranks, whose homes are at some distance from their stations, this period may be extended at the discretion of General Officers Commanding.

2. Subject to the conditions above referred to, district (or temporary) leave paragraph 225, Army Regulations, India, Volume II) is extended to 15 days.

British Officers, warrant and non-commissioned officers and men, wishing to proceed on leave for any period be-

yond 15 days, must take privilege, general, or ordinary leave, as the case may be, under ordinary rules.

3. The leave given to Indian ranks under paragraph 1 will be termed "War Furlough" and this will entitle them to a free passage to and from their homes once in any one year.

(This special furlough may be taken in instalments but free passage will only be admissible once). It will not count against the ordinary incidence of furlough when the war is over.

4. In addition to such leave as may be granted by the above, 3 days' recreation leave may be granted to all British and Indian ranks at the discretion of Officers Commanding Units provided the individuals so granted leave are within 12 hours' recall.

Organization, Indian Army.—With the approval of the Secretary of State for India, the Governor-

I. A. O. 135.
Dated 26-3-15.

General in Council is pleased to sanction as a temporary measure with effect from

the 22nd December 1914, the following increased establishments being maintained in Indian Cavalry regiments (exclusive of Body Guards and Aden Troop):—

- | | |
|--|--------------------------------|
| (i) All Indian Cavalry Regiments not on field service overseas | } 750 inclusive of reservists. |
| (ii) (a) All Depots of Indian Cavalry regiments on field service overseas, which proceeded at full war strength. | |
| (b) All depots of Indian Cavalry regiments on field service overseas, which proceeded at war strength of Headquarters and 3 squadrons. | } 372 inclusive of reservists. |
| | |

Organization—Sappers and Miners.—It is notified for information that the powers given to an Officer Commanding a unit in the field, to antedate the promotions of men left

I. A. O. 79.
Dated 22-2-15.

at his depôt, is extended to Commandants of Corps of Sappers and Miners who are authorised during the continuance

of the war, to antedate without pay, so far as may be necessary to safeguard the interests of the men concerned, promotions of Indian ranks made either in units on field service or in units remaining in India.

226. *Organization—Indian Army.*—With reference to India Army Order No. 135 current, in view of establishments of Indian cavalry regiments *not on field service* having been increased to 750, the Government of India have decided to increase the number of Indian officers and non-commissioned officers in all such regiments as follows:—

- (a) *Silladar cavalry regiments*—
- (i) 1 extra Jemadar when strength reaches 700.
 - (ii) 2 extra Lance Dafadars for every 15 men in excess of 625.
- (b) *Non-silladar cavalry regiments*—
- (i) 1 extra Jemadar on establishment reaching 700.
 - (ii) 2 extra Lance Dafadars for first 30 men over 602.
 - (iii) 2 extra Lance Dafadars for every 15 men after that.

2. The above increase will be included within the total establishment of 750.

3. The promotions to Jemadar will be permanent, while those to Lance Dafadar will be temporary only for the period of the war.

4. In connection with this measure the Government of India consider it desirable to re-employ pensioned Indian officers (Risaldars, Ressaidars, or Jemadars) and pensioned non-commissioned officers (Dafadars or Lance Dafadars), whenever such men are available and are in every way suitable, *in lieu* of the extra Jemadars and Lance Dafadars above sanctioned, respectively, and such men may be re-employed in the rank they held on retirement on the following terms:—

Full pay of rank (at non-silladar rates) in addition to pension or other allowances they may be in receipt of as pensioners, *plus* compensation for dearness of food and good conduct or good service pay .

A free issue of clothing as allowed for reservists called up for service.

Organization.—Indian Army.—The Government of India

I. A. O. 192.

Dated 26-4-15.

have sanctioned the following revised scale of Indian Officers and non-commissioned officers considered necessary for the training and discipline of the extra establishments, authorised for Indian Infantry Battalions and Depots in substitution of the various scales at present allowed:—

For Unmobilized Battalions.

- (1). For every complete 114 in excess of 912 (including recruits and embodied reservists). 1 Jemadar.
- (2). For every complete 20 in excess of 912 (including recruits and embodied reservists) 1 Havildar and 1 Naick.

For Depots of Infantry Battalions.

In addition to the Depot staff laid down in Field Service Manual, Indian Infantry and Pioneers, Section 7.

- (1). For every complete 100 in excess of 63 at a Depot (including recruits and embodied reservists). 1 Jemadar.
- (2). For every complete 20 in excess of 63 at a Depot (including recruits and embodied reservists). 1 Havildar and 1 Naick.

The above are to be within the total establishment allowed for a Battalion or Depot.

2. The promotions to Jemadar will be permanent, those to Havildar and Naick temporary only, but will carry full pay of the rank.

3. It is desirable that Battalions and Depots shall employ pensioned Indian officers (Subadars or Jemadars) and pensioned Havildars or Naicks whenever such men are available, and are in every way suitable, in lieu of the

extra Jemadars, Havildars and Naicks above sanctioned, respectively, and such men may be re-employed in the rank they held on retirement of the following terms:—

Full pay of rank in addition to the pension or other allowances they may be in receipt of as pensioners, plus compensation for dearness of food and good conduct or good service pay.

A free issue of clothing as allowed for reservists called up for service.

Officers—The Secretary of State for India has ruled that the provisions of the Royal Warrants published in Army Orders Nos. 35 and 73 of 1915, are applicable to the officers of the Indian Army Reserve of Officers. In supersession of the orders contained in the last clause of paragraph 1, Appendix III, Army regulations, India, Volume II, Officers of the Indian Army Reserve who belonged to that reserve previous to 5th August 1914 will, during the present period of mobilization, take rank with officers of the Regular Army as though their rank bore date of 5th August 1914. Indian Army Reserve Officers who have received commissions since 5th August 1914 will take rank with officers of the Regular Army of the same rank according to the dates of their appointment to the rank.

Officers.—It is notified for information that the provisions of India Army Order No. 165, dated 12th April 1915 are also applicable to retired Indian Army Officers who have been recalled for Army Service.

Pay and Allowances.—It has been decided by the Secretary of State for India that all officers of the Indian Expeditionary Force serving in Europe, (both of the British and Indian Services) in receipt of Indian rates of pay, shall receive while sick or wounded, the full pay which they were drawing before being struck off duty, for a period of three months, and thereafter, the rate of pay ordinarily admissible on sick leave under Indian regulations. This

decision has effect from the date of outbreak of the war.

Pay and Allowances.—The Government of India have

I. A. O. 109

Date 15-5-15.

decided that neither British nor Indian income-tax will be recovered from the pay of Officers, Warrant and Non-Commissioned Officers and men serving with the Indian Expeditionary Forces during the present war.

Pay and Allowances.—The Government of India have

I.A.O. 142 Dated 5-4-15.

decided, as a special case, that with effect from the commencement of and throughout the duration of the present war, a regimental officer, other than a Commanding Officer, Adjutant or Quartermaster, who may be ordered to join one of the Expeditionary Forces in any capacity, shall receive, while so absent, staff pay at a rate not less than that of his permanent regimental appointment in India, either from the date he takes over his field appointment in India or from the date of embarkation for service overseas, if he is unable to join his appointment in India. The full staff pay of his permanent regimental appointment will be available for his locum tenens from the same date.

241. *Pay and Allowances.*—It is notified that with the

Dated 17-5-15.

approval of the Most Hon'ble the Secretary of State for India, the Government of India have decided that officers of the Indian Expeditionary Forces (both of the British and Indian services) who are prisoners of war with the enemy or are reported missing, shall receive their full pay and allowances for the first sixty-one days and thereafter as follows:—

(i) *British Service.*

- (a) General and Staff Officers drawing leave pay under paragraph 226, Army Regulations, India, Volume II.—Half pay of their Indian appointment subject to a maximum of £1000 and a minimum of £250 a year up to a limit of eight months absence in all from their appointments. Thereafter, British half pay or pay of rank and field allowance,

(b) Regimental officers.—British pay of rank and field allowance.

(ii) *Indian Service.*

(a) Divisional and Brigade Commanders.—Half pay of their appointments subject to a maximum of £1,000 and a minimum of £250 a year up to a limit of eight months, thereafter, unemployed pay.

(b) Other officers.—At their option, either Indian Army leave pay, or British pay of rank *plus* field, lodging, fuel and light allowances.

Rewards—"The Military Cross." London Gazette Notification dated 1st January 1915.

I. A. O. 108.	Royal Warrant instituting a new
Dated 15-3-15.	Decoration, entitled "The Military Cross."

George R. I.

George the fifth by the Grace of God, of the United Kingdom of Great Britain and Ireland, and of the British Dominions beyond the seas, King, Defender of the Faith, Emperor of India. To all to whom these Presents shall come Greeting. Whereas we have taken into our Royal consideration the distinguished services in time of War of Officers of certain ranks in our Army; and whereas we are desirous of signifying our appreciation of such services by a mark of Our Royal favour, We do by these Presents for Us, Our heirs and successors institute and create a Cross to be awarded to Officers whose distinguished and meritorious services have been brought to Our notice.

Firstly.—It is ordained that the Cross shall be designated "The Military Cross."

Secondly. It is ordained that the Military Cross shall consist of a Cross of silver having on each arm Our Imperial Crown and bearing in the centre the letters G. R. I.

Thirdly. It is ordained that no person shall be eligible for this Decoration nor be nominated thereto unless he is a Captain, a Commissioned Officer of a lower grade, or a Warrant Officer in Our Army or Our Indian or Colonial Military Forces, and that the Military Cross shall be award-

ed only to officers of the above ranks on a recommendation to Us by Our Principal Secretary of State for War.

Fourthly. It is ordained that Foreign Officers of an equivalent rank to those above mentioned, who have been associated in military operations with Our Army, or Our Indian or Colonial Military Forces shall be eligible for the honorary award of the Military Cross.

Fifthly.—It is ordained that the names of those upon whom we may be pleased to confer this Decoration shall be published in the London Gazette and that a register thereof shall be kept in the Office of Our Principal Secretary of State for War.

Sixthly.—It is ordained that the Military Cross shall be worn immediately after all Orders and before all Decorations and Medals (the Victoria Cross alone excepted), and shall be worn on the left breast pendent from a riband of one inch and three-eighths in width, which shall be in colour white with a purple stripe.

Seventhly.—It is ordained that The Military Cross shall not confer any individual precedence, and shall not title the recipient to any addition after his name as part of his description or title.

Eighthly.—It is ordained that any person who by an especial Warrant under Our Royal Sign Manual we declare to have forfeited The Military Cross shall return the said Decoration to the Office of Our Principal Secretary of State for War, and that his name shall be erased from the Register of those upon whom the said Decoration shall have been conferred.

Lastly.—We reserve to ourselves, our heirs and successors full power, of annulling, altering, abrogating, augmenting, interpreting, or dispensing with these Regulations, or any part thereof, by a notification under our Royal Sign Manual
Given at Our Court at St. James, this 28th day of December, one thousand nine hundred and fourteen, in the fifth years of Our Reign.

By His Majesty's Command.

KITCHENER.

Reviews of Books.

The Japanese in Manchuria, 1904, by Colonel E. L. V. Cordonnier, Commanding 119th Infantry Regiment, French Army.

(Translated by Captain C. F. Atkinson.)

Messrs. Hugh Rees, Ltd., 5 Regent Street, London, S. W.

VOLUME II.*

Part 11—The March to the Battle.

In Chapter I—Attacks and Feints—we are given the problem still before Stackelberg after he had succeeded in withdrawing his defeated army from Telissu to Kaiping, where he fortified his position. His task was still to assist Port Arthur by drawing upon himself the greatest possible force of the enemy. If Oku did not advance there was a possibility that Japanese troops were being transferred from his army to assist the besieging force before the fortress. In that event Stackelberg was not fulfilling his mission; and, in order to learn the truth, Colonel Cordonnier considers that Stackelberg should have made a reconnaissance in force, exploiting his cavalry to the utmost. If it was ascertained that the Japanese were detaching forces to Port Arthur he should attack to draw them back: but if the cavalry mass reported Oku's army still to be intact he should prepare to defend Kaiping, and impose further delay.

In Chapter II—The Rearward Services of the Army—brief reference is made to the operations leading to the battle of Ta-shih-chao, and the subsequent Japanese occupation of Hai-cheng on August 4th. The Japanese 2nd Army had taken 50 days to traverse the 93 miles from Telissu to Hai-cheng. The 4th Army had reached Hsiu-yuen, little over 50 miles from Hai-cheng, on June 8th, and joined Oku at Hai-cheng on August 4th; whilst the 1st Army on the same date, in spite of little fighting, had only advanced 95 miles from the Yalu—in 95 days. We are

*For Review of Vol. I, see Journal of April 1915,

shown how it was due to the rearward services that the movements of the Japanese armies were so crippled, in a country devoid of good roads and possessing but one line of rail. The difficulties of bringing up supplies and ammunition, and all that is needed to maintain armies in the field were consequently very great, and taxed the ingenuity of the Japanese to the utmost. "The rear is not only a drag upon the front, it paralyzes strategical manœuvre by restricting the scope of every flank movement that the higher commander would like to make".

Chapter III—Strength and Organization of the opposing forces on August 23rd—is devoted to Orders of Battle and the dispositions of the respective forces.

In Chapter IV—The Acceptance or Refusal of Battle—an examination is made of the situation in which Kuropatkin found himself on August 23rd. His total available forces amounted to about 150,000 men—that of the Japanese to 135,000, but estimated at a higher figure by the Russian Commander-in-Chief. Although very strong defence works had been constructed above Liaoyang, there was no objection to their being abandoned. By retiring to Mukden, Kuropatkin would sooner meet his reinforcements (which were now coming in at the rate of about 50,000 a month), and every step back increased the supply difficulties of the Japanese. Kuropatkin could, then, perfectly well refuse battle.

On the other hand, the Russian *moral* had been completely restored. The battle of Ta-shih-chiao had entirely wiped out the defeat at Telissu. Previous losses had been made good: every man desired the battle, and all alike, from general to private, were confident of victory. Kuropatkin therefore could accept battle with every hope of success.

The following appreciation of Kuropatkin by Colonel Cordonnier will be read with interest. "Kuropatkin had been chief staff officer to the renowned 'White General', Skobelev, and the glory of the hero had reflected its rays upon him. His ability as an organizer, as a careful work-

man, had ensured the success of Skobelev's boldest schemes. But it was these very qualities that ruined him when he came to command the Army of Manchuria. His exceptional prudence was no longer balanced by another's daring. His high intellect had worked at its best during the strategic phase of the campaign. Now, however, it was a question of fighting battles, and intellect must take second place. It is character that commands in battle. Intellect has done its part, and retires.

"What this army wanted was a chief. What it had was a Chief of the Staff. Kuropatkin was made of somewhat the same material as Berthier. It was ill for himself and for Russia that events placed him in command of the Army of Manchuria.....Kuropatkin's fault was that he accepted a command that was beyond his powers. The man was not of the stature for his task."

Chapter V deals with the Approach-Fighting before Liao-yang, in which we are treated to a disquisition on the Strategy of Envelopment and the Strategy of Interior Lines. The author, while pointing out the advantages and disadvantages of both forms of strategy, and illustrating by references to the Franco-German War and Napoleon's brilliant campaign of Rivoli, entertains, seemingly, a bias towards the latter form of strategy. He then shows that in the case of small armies it is possible to achieve the tactical envelopment of an opponent, even starting from a close grouping: but that in the case of large armies tactical envelopment can only be accomplished by preparation well in advance, and led up to by strategical envelopment.

The following observation is of interest in view of recent events:—"With the armed masses that will take part in the European battles of these days, it is a sheer impossibility to improvise an enveloping manoeuvre. And if the frontier common to the two belligerents be too narrow to admit of its being prepared, it will not on that account be given up. The Power which has at its disposal the stronger masses will take the ground that it thinks requisit for the strategic

development, *wherever it can most easily be got, whether in its own territories or in those of a neutral too ill-armed to make its neutrality respected*".

With the example of Rivoli before him, Colonel Cordonnier is of opinion that had Kuropatkin manoeuvred as did Napoleon, success might have attended his efforts; though admitting that the strategy of interior lines is dis-armed if, attacked at every point, it is obliged to use the whole of its means in defence.

Then follows a description of the various operations that led up to the final junction of the Japanese armies, commencing with the fighting of the 1st Army on the Tang-ho. Kuroki here issued his orders on the evening of the 22nd August for a battle on the 26th. The force at his disposal was practically the same as that of Oku at Telissu; but the front of attack was almost double, and would not narrow as the attack progressed, since the Japanese and Russian fronts were parallel. Kuroki aimed, therefore, at breaking the opposing front near its centre about An-ping. The Guard on the left met with a serious rebuff: the 2nd Division in the centre were unsuccessful; and the 12th division on the right only obtained a small measure of success with 2 battalions on the extreme flank. The battle was at a standstill and Kuroki realized it, for he had not a man in reserve, and had failed to break the Russian centre. Still, though the tactical results were *nil*, the strategical success was considerable; for Kuroki knew that he was holding up a force at least equal to his own; and that if a manoeuvre on interior lines required the displacement of Russian forces towards the Japanese 2nd and 4th Armies, no such manoeuvre could have been carried out by Kuropatkin on August 26th.

On August 24th Kuropatkin had decided in the western theatre to hold the An-shan-chan position against Oku and Nodzu. Roughly speaking Kuropatkin had one-third of the available forces about An-shan-chan, one-third on the Tang-ho, and the remaining third as a mass of manoeuvre. He was well acquainted with the distribution of the hostile forces:

Zarubaiev with 5 divisions was confronted by Oku and Nodzu with 6; and Bilderling on the Tang-ho commanded 4 divisions against about 4 at Kuroki's disposal. In theory, therefore, success should have been possible for Kuropatkin in whichever quarter the mass of manoeuvre was employed. But Kuropatkin's one idea was to protect himself, and the intention of passing to the offensive in order to crush the enemy is nowhere to be discerned. During the night of the 26th-27th August Kuropatkin heard from Bilderling of the very minor success gained by the 46th Japanese Regiment on the extreme left of the Tang-ho Russian front, and decided to retire his whole army. Two battalions of Kuroki's army which had everywhere else been heavily repulsed, brought about the retreat of 6 Russian Army Corps! We may well enquire with Colonel Cordonnier, "What, then, *was* Kuropatkin's purpose?" He replies, "At first he had a purpose. But no sooner had he framed it than his imagination was busy with the dangers involved in his resolution, and with the advantages of an alternative solution. At the first opportunity he adopted this alternative. But directly he had done so, and the responsibility of execution began, he succumbed to a third idea. His was a fine intellect—what was wanting, was character."

And so we find the Russians falling back, Zarubaiev to north side of the south Sha-ho, and Bilderling to the left bank of the Tang-ho. By the evening of the 28th the Japanese 1st Army was in possession of the heights on the left bank of the Tang-ho, and the 2nd and 4th Armies had reached the south Sha-ho. The Russians were under cover of their defences, extending from the Shou-shan-pu height near the railway on their right, with their left resting on the Tai-tzu-Ho about Hsia-pu—on an arc of a circle having a radius of about 6 miles from Liao-yang city.

The Japanese Armies were now in close touch with one another, and the tactical envelopment of the Russian Army, the sequel of the strategical envelopment, was an accomplished fact.

Reviews of Books.**PART III.***The Battle of Liaoyang.***Chapter I. Engagement.**

Although Japanese strategy had outlined the tactical envelopment, the lines of retreat of the Russian Army had not been affected on the 29th August, and it was yet uncertain if the Russians would accept battle, or evade it by a still further retreat northwards. In order to bring about the desired battle it was necessary to fix the Russians to their position; and a general advance of the Japanese armies was ordered for the purpose of gaining information as to the enemy's intentions. By this means Oyama learnt, during the 29th, the approximate dispositions of the Russians, and the sight of their infantry digging themselves in along their entire front proclaimed the decision of their general to accept battle. This information, Colonel Cordonnier shows, was successfully obtained chiefly owing to the supineness of the Russian cavalry under Mischenko and Samsonov. Akiyama's Cavalry brigade should have been annihilated, whereas it was able to report that the Russian right flank did not extend westward of the railway, and made a careful examination of the Shou-shan-pu position. The Russians had placed no outposts nor advanced guards out in front of their prepared position, in order to delay and deny reliable information to the enemy's reconnoitring parties. Had they done so, it seems certain Oyama would have been faced with much contradictory information on the night of the 29th, instead of being able to read his opponent's intentions like an open book. He was already in a position to issue clear definite orders for the impending battle.

In discussing Oyama's linear dispositions for the battle, which placed the whole Japanese Army on a semi-circular front, divisions abreast, with practically no reserve, no independent cavalry, no protective cavalry and no advanced guards, Colonel Cordonnier offers some observations on the current criticism of the over-extension of Japanese fronts.

The Japanese 4th, 6th, 3rd and 5th Divisions, the equivalent of more than 2 French Army Corps—supported

by a numerous artillery—were detailed to attack a front of only 3 miles, from Ma-yeh-tun to Hsin-li-tun. Farther east, the 10th, Guard, 2nd and 12th Divisions were distributed to face the remaining 16 miles of the Russian front. It was obvious, therefore, that the Japanese Commander-in-Chief intended to make his greatest effort by his left, whilst the enemy was held to his ground in the centre and on the Japanese right. The capture of the Shou-shan-pu heights would involve the abandonment of the whole Russian position south of the Tai-tzu-Ho.

In face of an inert foe, who could not be induced to leave his earthworks and take the offensive, direct attack was the only manoeuvre required, and the danger of over extension along the Eastern front was therefore minimised in the present instance.

With reference to the question of reserves, in light of the present experiences in Europe, we may not perhaps agree with the author when he states that "on the vast battlefields that we shall perhaps see one day, when groups of armies confront one another, all idea of transferring forces from one wing to the other will often be put aside as impossible." But we are in full agreement with him when he states that in the realms of tactics the density of the line of battle can be modified at will by bringing up troops held in reserve: whilst in strategy, owing to the distances involved, one cannot always count on the speedy transference of any large force held in reserve to a desired quarter; and, therefore, that reserve may be wasted. The conclusion at which he arrives is that a reserve, which is essential in an Army Corps and smaller units, appears a profitless weakening of the line of battle in the highest formations. In general, the utility of a reserve diminishes in proportion as the size of the unit increases.

Oyama had no lateral roads available for the transfer of a general reserve, hither and thither; and in view of the problem before him he was compelled to restrict the depth of his army. He therefore retained little or no Army reserve, since the 4th Division, [originally told off for this purpose,

was almost immediately thrown into the battle. Kuropatkin had a large general reserve, and it is well known what use he made of it, owing to his timidity and irresolution.

In each of the 3 Japanese armies the procedure was much the same as at General Headquarters—Divisions, brigades and even regiments were employed abreast: and the only reserves kept in hand by divisional generals were usually *Kobi*, or reserve units of second quality.

In view of the present position (December) along the Aisne and in Flanders, the following observation by Colonel Cordonnier is of especial interest:—"In a war of fortified positions, in which there are few uncertainties as to the points of attack, and manœuvre yield precedence to straight forward attack, the 'abreast' order, by preventing the mixing-up of units, permits each unit to put forth the greatest effort of which it is capable as a unit. And.....we feel justified in saying that the arrangements which placed and kept every unit in the army under the orders of its own chief, went far to ensure their success.

"Respect for the organic unity of organized units is one of the factors of victory."

Colonel Cordonnier has some trenchant remarks to offer regarding Kuropatkin's orders and dispositions, to which only brief reference can be made. These orders breathe no intention of an assumption of the offensive at the proper time, though 2 Army Corps and a large cavalry force are held in reserve, but in massed formation. On the Japanese side the orders indicate a bold offensive, and an unhesitating expenditure of force on a preconceived idea—on the Russian a passive defence alone is implied. "To await the desired moment, and then to risk everything on the throw, demands uncommon boldness. Of such boldness the Russian commander proved to be destitute".

Chapter II—Combats within the Battle.

In discussing the proportioning of force to task, Colonel Cordonnier adversely criticizes Oyama taking the 5th Division from Nodzu's Army attaching it to the 2nd, and temporarily withdrawing the Guard Division from the 1st

Army and placing it under control of Nodzu. This leads him to a consideration of how to minimize the difficulties of command, and he shows why it is necessary that small armies should be organized with small strategic units, and large armies with large strategic units. He considers that divisions (as in the case of Japan and ourselves) and Army Corps (as in that of Continental nations) are not suitable as strategic units for great forces numbering 1,500,000 men and more: and in the latter case the strategic unit should be not less than 100,000 men, or, say, 3 Corps.

Under the sub-title, *Manceuvre by means of Combat*, the engagements of the different Japanese divisions during the 30th August are briefly described. The Japanese failed to make any appreciable impression on the fortified Russian front; but Kuropatkin had already made serious inroads into his General Reserve in answer to appeals for help. Although he still held a considerable reserve at his disposal, the day's operations revealed the Commander-in-Chief's intention to employ his reserve "not as a mass of manceuvre, but as a reservoir for soothing the anxieties in the fighting line."

Kuropatkin had, it is true, instituted a counter-attack up the valley of the Ta-ssu brook against the Japanese 10th Division in the centre; but it died away. Had it been vigorously pressed, and in sufficient strength, it seems likely that the Japanese army would have been cut in two—and Japanese Headquarters were for a time extremely anxious as to this possibility.

Chapter III.—Battle.

We are shewn in, *Parry by Attack*, how Oyama met the dangerous threat to his centre. He might have suspended the attack of the 2nd Army, and collected units from it to form a reserve to deal with the Russian offensive. But "the leader of the Japanese armies did not parry. He emphasized his own offensive instead," and directed the 2nd Army to expel the enemy from the height of Shou-shan-pu, in order to extricate the 10th Division from its difficulties.

"It is by intensifying one's own will that one cancels the opposed will."

In a consideration of the situation on the field of battle on the night of the 30th-31st August, Colonel Condonnier shows that so far no decision had been obtained. The Russian Army was in an excellent frame of mind. Protected by natural and artificial defences it had succeeded in inflicting a repulse to the enemy. There was no uncertainty as to the principal objective of the Japanese attack: this was being made to spend itself, for practically the whole force of the enemy had been deployed and engaged, whereas part of the Russian Army was still unused. An available offensive group of the IVth Siberian Corps and the mounted troops of Samsonov were at hand for a great counter-attack at dawn. It could be employed to break either the Japanese centre, or to attack the Japanese left flank. For the former the favourable moment seemed to have passed, and Colonel Condonnier considers the latter operations to have held out probable chances of success.

In a discussion on Artillery Reserves we are presented with a vivid picture of two long drawn-out infantry lines opposing ribbons of fire to each other, the ribbon of attack close up to the ribbon of defence. The advance comes to an end; for the rifleman morally, and the gunner physically, has become exhausted and ammunition has to be husbanded. An increment of fire power is demanded to silence the hostile guns, and to keep the hostile infantry glued flat to the ground. The cry everywhere is for "guns," and this is the utility of artillery reserves: for artillery has only gained superiority of fire when its own infantry advances. In the opinion of Colonel Condonnier "it is one of the essential characteristics of modern tactics, that the commander directs his battle by directing his shrapnel". Later, he points out, so great is the moral and material effect of machine gun fire, that it will be the duty of attacking artillery in future to keep a most careful watch on the field of battle, so as to be able at a moment's notice to bring the enemy's machine guns under fire. "The enemy of the machine gun is the field gun, and the organization of the former should be based upon this fact. Groups of machine guns offer a target, whereas

machine guns in extended order, so to speak—will escape the scrutiny of the batteries". This conclusion is doubtless receiving close attention in Europe at the present moment, where the numerous machine guns of the enemy have hitherto played so important a part in their tactics.

During the 31st August the Japanese decisive attack against the Russian right failed, and Stackelberg was able to report that "the spirit of the troops is magnificent." On the Russian left little fighting took place, and that was chiefly confined to an exchange of artillery fire. The Xth Corps there remained passively on the defensive whilst Kuroki was carrying out one of the boldest manoeuvres that military history records. His only line of communication was the Mandarin Road to the Yalu. At first he left 3 brigades to guard this; but the inaction of his opponent tempted him to take still further risks, and to call up one of these brigades to himself. He knew that the Xth Russian Corps menaced his communication, and that the XVII Corps was on the right bank of the Tai-tzu Ho about Hsi-Kuan-tun behind the Russian left, where he might have to fight against 2 to 1 odds, while threatened in rear at the same time by Orlov's Infantry Division and Samsonov's Cavalry Division from the north. But he knew his man and took the risk. The movement of Kuroki's brigades across the Tai-tzu was early discovered, and General Bilderling was able to confront him on the right bank of the river with a whole corps, fresh and free to manoeuvre.

Into the details of the operations that followed we have not space to enter. The 31st August had been a day of failure for the 2nd and 4th Japanese Armies, and but for Kuroki's enterprise, Liaoyang remained a Japanese defeat. If anything was to be effected it must be by manoeuvre, or failure confessed. "Out of this adventure Kuroki emerged triumphant by playing upon the alternatives of daring and caution, offensive and defensive, with fineness of touch that wins our admiration." Japanese Headquarters sought a decision in vain against the Russian right, Kuroki obtained one against their left.

Chapter IV—The Decision in Battle.

In a discussion on Information as the Basis of Manœuvre, Colonel Cordonnier shows that Kuropatkin having prepared 3 lines of defence round Liaoyang was swayed in his final choice between them by information; and he has some interesting remarks to offer on this subject. "The general who *intends*, articulates his forces to make his intention triumph. The news that the enemy was offering little or no resistance to the development for his scheme, would undoubtedly influence his dispositions but his will would still be evident. But the general who waits upon information before acting is the slave of his information; he and his army too, for it is the information and not the general, that commands it". He fears that the advent of the dirigible and the aeroplane has tended to distort our ideas of war, and that information, rather than intention will be regarded as the mainspring of operations; whereas information ought to be the handmaid of intention.

Colonel Cordonnier next considers intention as the basis of manœuvre, and claims that if war were merely a matter of strength and figures, Kuroki's manœuvre was sheer mid-summer madness. The situation was only too clear, and the general for whom 'information' was the basis of action would not have dared to attempt the enterprise. Still, information is of the greatest use, for it enables intention to make its dispositions according to the results aimed at, and the risks involved. Security is often the reward of boldness, and intention is the key to victory.

Under the heading of Boldness and Prudence, we are shewn how Kuroki advanced, entrenched when danger threatened, advanced again when the danger was removed, again entrenched when faced by fresh dangers. But he never ceased to pursue his offensive object, using alternately offence and defence as his means. Colonel Cordonnier says, "How far removed all this is from the simple notion that it is only necessary to attack to win!" And experience in Europe seems to point to the truth of this observation, and to the necessity for alternating between attack and defence in modern war.

In *The Division of Labour* we are treated to a discussion on the chain of control from the Commander-in-Chief downwards. The personal influence of the latter steadily diminishes as the battle progresses on the immense fronts of to-day. The conception of manoeuvre, the allotting of available resources, and the decision to accept or refuse battle is his. But as soon as the first engagements are in full swing, his control passes into the hands of the lower commanders until the moment arrives when the choice must be made between pursuit and the acceptance of defeat. The roles of Army Commanders, Army Corps Commanders, Divisional generals, and the lower leaders are considered in turn, until we get to "Tommy," and his share in victory.

The Pursuit-less Battle deals with the retirement of the Russian to their inner defences before Liaoyang during the night of the 31st August—1st September and the stern fighting of the Japanese 1st Army across the Tai-tzu on the 1st September about Manju-yama; then follow the operations of the 2nd September, when Kuroki had to stand on the defensive against greatly superior Russian forces. Everywhere the Japanese were done up, and the battle died a natural death on the 3rd, during which the Russians commenced the retreat on Mukden. The Japanese had no strength to pursue; thus where they had hoped for a Sedan, they obtained an Eylau.

Chapter V, *The Endless War.*

Under the sub-title, *Tide without Ebb*, Colonel Cordonnier briefly reviews the general situation in Manchuria following on the Russian retreat from Liaoyang to Mukden.

From May to September 1904 Kuropatkin, though he played for space, gave ground and fought only on the defensive. From that time until the end of January 1905 he sought to gain ground by offensive operations, since Port Arthur was still the Magnet. Following on the capitulation of the fortress and the destruction of the Russian fleet contained in the harbour, the Russian Army stood on the defensive, finally abandoning that and retiring far to the north, after Mukden.

At the beginning of October Kuropatkin could place 180,000 men in the field against 150,000 Japanese; but the offensive as conducted by him at the Battle of the Sha Ho could not possibly be a victory. His prudent temperament tied the greater part of his army to entrenchments, and he allowed only his advanced guard to strike.

In *The Conquest of Peace*, Colonel Cordonnier points out some striking analogies between the Manchurian Campaign and Napoleon's invasion of Russia in 1812, and emphasises some suggestive differences also. His work is brought to a close by a discussion on the Continuity of Effort. And the truth of some of his observations unfortunately comes very closely home to us:—"To open a war with retreat and abandonment of part of the homeland to the invader, is to depress the *moral* of general and private soldier, and to discourage public opinion at the outsetThe absence of a sufficient effort in peace, therefore, will mean the necessity of an immense effort at the moment of crisis—and that after the habit of effort has been more or less lost."

"Victory comes from effort, from continuity of effort, from training within effort. Victory profits each and all, is won by each and all, and is prepared by each and all. That is the lesson of the Russo-Japanese War."

*German Official Account of the Russo-Japanese War.**Battle of Mukden—Part I.*

Messrs. Hugh Rees, Ltd., 5 Regent Street, London, S. W.

The volume under review forms the first instalment of the great battle that raged for the space of nearly a fortnight in February and March 1905. Part I, now published in English, is a record of events that occurred between the 25th February and 3rd March.

Since the work is the product of the Historical Section of the German General Staff it is superfluous, perhaps, to observe that it is distinguished by the thoroughness which characterizes the output of that body of expert officers. But, like most German official publications, much of it is very dull literature, and fails, in consequence, to grip the attention or stir the imagination of the reader. The movements and actions related are generally ground out with machine-like precision; and there is little within these pages to show that men and leaders are not mere automata, but human beings subject to all the weaknesses and strength of their natures. The human element receives virtually no emphasis in this colourless record of great events, and their bare recital usually leaves the student stone cold.

The most important feature of the volume is the comments on the operations described; and these are well worthy of close attention, owing to the generally sound views expressed. They undoubtedly prove that the higher training, and knowledge of war, of the Russian leaders left very much to be desired ten years ago; and, being of particular interest at the present juncture, it is proposed to bring out for consideration some of the more salient criticisms advanced by the German General Staff, by outlining the operations to which they refer.

Before proceeding with our task we must take exception, however, to the manner in which the maps—as distinct from the sketches—have been prepared. Topographically speaking, they are quite excellent so far as the hill features are concerned. These are shewn by means of silver-

grey form lines. On these the positions of the opposing forces in green and red stand out clearly; but name places are also printed in silver-grey, instead of in black or some dark colour, and the difficulty in finding places referred to in the text—particularly in hilly regions—by artificial light has a very trying effect on the temper, and results in much needless waste of time.

The work deals with the operations in three stages, between the 25th February and 3rd March.

- (i) The events on the eastern wing from February 25th to March 1st, the events in the centre, and those on the western wing, also between the same dates.
- (ii) The events in the west, centre and east on the 2nd March, and,
- (iii) The events in the west, centre and east on the 3rd March.

Separate chapters are devoted, in addition, to Russian General Headquarters from February 25th to the 28th, Russian General Headquarters and Headquarters of the 2nd Army on March 1st, Command of both Armies on March 2nd, and Command of both Armies on March 3rd.

We are given, therefore, a comprehensive survey of the operations during the first week of the battle, within 200 pages of printed matter.

Up to the 24th February it had been Kuropatkin's intention to attack with the right of his army on San-de-pu; but intelligence of the advance of strong hostile forces in the eastern theatre caused him to despatch considerable reinforcements, including the 1st Siberian and XVIth Army Corps, in support of his left. But no sooner had he done this than further information was received which raised doubts in his mind as to the wisdom of this action; and he cancelled the order of the march of the XVIth Army Corps. Kuropatkin's original decision to assume the offensive in the east, instead of in the direction of San-de-pu, was due to a wrong appreciation of the situation, his attention having been intentionally drawn to the east by the

Japanese: but had he resolutely persisted in a counter offensive in great strength, in that theatre, a rapid and decisive success there would probably have had far-reaching effects on the situation in the west. Countermanding his orders when the reserves had all started for the east merely tended to lead to disorder, and fatiguing counter-marches, whilst surrendering, at the same time, the initiative to the enemy.

As a result of these half measures, the actions on the eastern wing of both armies from February 25th to March 1st had no decisive influence on the battle. In spite of their superiority in numbers, the Russians nowhere secured an advantage. They attempted to guard every pass, and needlessly split up and scattered their forces. Content to act on the defensive, troops were pushed forward to those points the enemy attacked, often arriving too late, instead of being utilised to deliver counter-attacks by the shortest route from the positions they might be occupying at the time. The troops not actually engaged remained passive spectators and rarely, if ever, co-operated by vigorously attacking what was in front of them to relieve the pressure elsewhere. This conspicuous absence of the offensive spirit was probably the result, in some degree, of the passive role assigned by the Commander-in-Chief to the 1st Russian Army under Linevitch. In any case the Japanese successfully contained a much stronger force of the enemy, and pushed back Rennenkampf's detachment a considerable distance to the north.

In the centre up to March 1st there was no decisive action either. The Japanese refrained from attacking, in order to avoid the heavy losses they were bound to suffer in assaulting the strong Russian position. The operations were confined chiefly to a Russian demonstration against the Sha-ho bridge on February 27th, which ended in failure without any compensating advantage having been achieved: whilst on March 1st there occurred nothing more than a mutual bombardment. The fully deployed adversaries in the centre were each apparently afraid of the strong position of the other. But the Japanese here also held their posi-

tion with weaker forces than those of the Russians under Bilderling.

More important operations were developing in the western theatre. The Japanese 3rd Army crossed the Hun Ho on February 27th, and though the movements of Nogi's army, advancing on a broad front, were recognised by the Russian Cavalry in good time they failed to impose in favourable country any delay on his columns. As is well known, the decisive rôle in the impending battle had been assigned by the Japanese Commander-in-Chief to Nogi's Army, with which it was intended to carry out the envelopment of the Russian right. The strong body of Russian Cavalry on that flank, confining itself to a feeble defensive, failed lamentably in its task; and, moreover, furnished such misleading information regarding the enemy's columns that the Russian Commander-in-Chief committed himself to false manoeuvres, in the belief that strong hostile forces of all arms were operating on the western bank of the Liao Ho. Neither is General Kaulbars, the Commander of the Russian 2nd Army, to be commended for the part he played. He acted purely on the defensive, and never initiated any counter-attacks whereby he could certainly have seriously checked the manoeuvre of the Japanese 2nd Army—when wheeling gradually to the right in close touch with the 3rd Army, with the object of bringing about a uniform envelopment of the whole Russian western wing. This movement was only carried out with great difficulty by the left of the 2nd Japanese Army in spite of its merely succeeding in occupying positions evacuated by the Russians up to March 1st.

The advance of the Japanese 3rd Army and the attack of the 2nd Army caused General Kuropatkin to adopt certain measures which profoundly affected the whole further course of the battle. He seems to have inclined to the opinion that the Japanese would take a wide turn west of Mukden. He definitely abandoned now all idea of the offensive on the eastern wing of the Army, and ordered the 1st Army to send the 1st Siberian Army Corps back to Mukden. Various other detachments were taken

from the 2nd and 3rd Armies to form a striking force; whilst the 2nd Army and right of the 3rd were withdrawn to shorten the length of front, and to refuse the exposed right flank. His intention at this time appears to have been to retire the centre and eastern wing of his army if hard pressed, to refuse his eastern wing, and to assume the offensive, with the superior numbers he meant to concentrate N. W. of Mukden, against the Japanese envelopment. It is a question if it would not have been easier and simpler to continue the offensive already initiated in the east: but an attack in the west could even have been successful provided vigorous measures were at once adopted. Herein lay the weak point, since the Commander-in-Chief was not quite clear as to the manner in which his decision was to be carried out. Hence much uncertainty resulted with respect to the necessary re-arrangement of commands, and the allotting of their several tasks to the various components of the Russian forces. The 1st Russian Army apparently was to confine itself merely to the defensive; whereas what the situation demanded was that the Japanese should be vigorously attacked in the east and in front, and the envelopment in the west ward off by an offensive by the General Reserve against the flank of the Japanese 3rd Army wheeling to the right.

Dealing with the events of March 2nd, little of importance occurred in the eastern theatre. Kuroki was reserving the bulk of his 1st Army for the expectant pursuit, though a portion of his 12th and 2nd Divisions were engaged in attacking Russian redoubts with varying success. Further east the Japanese 5th Army resumed its attack against Rennenkampf's detachment but made little progress, as the Japanese could not break through the Russian positions anywhere by frontal attack, and were not strong enough to envelop. Meanwhile the Russians acted purely on the defensive, and remained inactive in the zone between their 1st Army and Rennenkampf's detachment.

In the centre the Russians also maintained a defensive attitude. Bilderling seemingly anticipating an early retirement

due to possible Japanese envelopment in the west. He also, apparently, feared Japanese penetration of his front, since the greater portion of the Japanese 4th Army moved to the attack early on the 2nd, and by night had approached within 100 yards of a part of the Russian position.

Meanwhile, events in the west continued to assume more important proportions. General Grekov with the bulk of the Russian Cavalry seems to have wandered aimlessly about over the plains, effecting nothing beyond coming to anchor N. of the Mukden—Hsin-min-ting road and transmitting incorrect and exaggerated information, which afterwards proved very fatal to the Russian cause.

Bürger's detachment on the Liao Ho, east of Hsin-min-ting, also remained inactive, not having received, apparently, an order despatched by Kuropatkin to return to Mukden. As a result of this want of initiative on part of the Cavalry Commander and General Bürger, these two isolated forces never took part in the action at Sa-lin-pu during the afternoon, when their intervention against the Japanese flank and rear would probably have resulted in the complete defeat of Nogi's 1st and 7th Divisions.

This encounter battle due W. of Mukden, occurred between portions of Topornin's and Wasiliev's troops directed on Sa-lin-pu, and Nogi's 1st and 7th Divisions, endeavouring to carry out their enveloping mission. It remained undecided when night fell, though the Russians had gained an advantage; but whilst Nogi hurried forward all available forces, the Russians neglected to do so.

Further south the Japanese 9th Division of Nogi's Army was severely checked by Golembatovski's detachment. The Russian 2nd Army east of the Hun Ho continued the retrograde movement previously ordered; whilst the Japanese 2nd Army made a frontal attack east of the Hun Ho, and an enveloping attack west of the river in touch with the 9th Division of the 3rd Army.

Reviewing the operations of the 2nd March, the official account shows how Oyama merely confined himself to handing over the 1st Cavalry Brigade of the 2nd Army to

Nogi, and to ordering his small General Reserve to start in a N. W. direction on March 3rd. His Army Commanders fully understood what his intentions were, and they had a free hand in carrying out their allotted tasks. It was far otherwise at Russian Headquarters, whence orders and counter-orders followed each other in rapid succession, dependent on reports received. We are shewn also how many chances for assuming the offensive were allowed to slip away. Linevitch in the eastern theatre might well have scored a marked success by penetrating the gap between the 1st and 5th Japanese armies. A victory on that wing would probably have had far reaching results, as Oyama had not yet disposed of his General Reserve, and all was still in suspense on the western wing. No advantage was taken either of Golembatovski's tactical success E. of the Hun Ho; and the Rifle Corps was close at hand to exploit that to the utmost, had an offensive spirit existed in the higher leading of the Russian Army. This, save in the sole case of Topornin's Detachment, was everywhere lacking. But here, too, the Russian command failed to come to a rapid resolution, in order to turn a favourable situation into a complete victory. Grekov and Bürger were not summoned to the battle-field at all, and Wasiliev only with some hesitation. General Kuropatkin had not given any orders to his troops making his intentions absolutely clear.

We might add that the situation was one in which Napoleon would have revelled; and we can imagine how he would have utilised Grekov and Bürger to come in from the N.W. on the flank and rear of the Japanese 1st and 7th Divisions, and thus have completely destroyed them next day, whilst the 9th Division and 2nd Japanese Army were still far distant to the south.

Although imbued with the fundamental idea that a counter-attack west of the Hun Ho alone could lead to success, Kuropatkin refrained from rapidly concentrating his forces in front in order to impose his will on the enemy by a

determined blow. This is attributed to a traditional Russian aversion to an encounter battle, and the predilection for a deliberate methodical mode of procedure. "The uniformity of attack was to be brought about by a previous deployment, and not by the way in which the tasks were assigned to the various units. This led to masses being concentrated within a limited area, from which they had to be deployed again for attack. Envelopment by the enemy was thus to the greatest possible extent courted." The opinion is expressed that it would have been better to take rapid advantage of the many favourable chances offered on March 2nd and "*to strive after tactical success when and where it is presented.*" This the Russian Commander-in-Chief abstained from doing; whilst the Japanese Commander-in-Chief, whose envelopment had been met frontally, ordered his General Reserve by the shortest route to continue the envelopment further north.

To continue with the operations on the 3rd March. In the eastern wing, Kuroki, informed of the progress of the 2nd and 3rd Japanese Armies, ordered the Guard Division to attack; but only gained a small advantage at a pretty heavy cost. To the east of Bian-yu-pu-sa only unimportant affairs took place: and the Japanese were unable to gain ground anywhere in spite of repeated attempts to do so. Meanwhile the Russians, as before, remained everywhere on the defensive against the Japanese 1st and 5th Armies—standing quite inactive except where forced to defend themselves.

In the centre no material change from the previous day took place in front of the Japanese 4th Army, and Russian VIth Siberian and XVIIth Army Corps. But the northward movements of the 2nd Russian Army necessitated a rearward adjustment of the line held by the Vth Siberian Army Corps on the right of the 3rd Russian Army—the Japanese pressing the withdrawal of the troops to their new positions.

On the west Nogi had decided to clear up the situation at Sa-lin-pu by attacking early on the 3rd. The 1st Cavalry brigade was to join the 2nd to cover his left

flank. During the 3rd the Japanese Cavalry remained unmolested by the far superior Russian Cavalry under Grekov which did not even co-operate with Bürger's detachment when that force engaged Akiyama's cavalry north of Sa-lin-pu. Although General Bürger was getting the better of the action with Akiyama, he, like Topornin the previous day, broke off the engagement before bringing it to a successful conclusion, and began to retreat after dark.

At Sa-lin-pu Topornin determined to carry through the attack he had prematurely broken off the previous day, and had at his disposal for this purpose 32 battalions and 88 guns. The Japanese at first were compelled to act on the defensive, and the Russians were progressing favourably when a false report was received that a force of something like a Japanese division was advancing by the Hsin-min-ting—Mukden road. Although only about half the Russian battalions were engaged, General Kaulbars, who had arrived upon the scene, ordered an immediate retreat. After losing some 45 officers and 1800 men, the Russians ultimately succeeded in disengaging themselves from the enemy and retiring to Yu-huan-tun, about 6 miles west of Mukden. The Japanese apparently were so surprised at this unexpected retreat that they failed at once to pursue. Towards nightfall the 9th Japanese division again came into close touch with the remainder of the 3rd Army, which was now in contact with the Russian 2nd Army behind their entrenchments west of the Hun Ho.

Meanwhile, Launitz had got his Army Corps east of the Hun Ho into a state of chaos by frequent changes of orders, resulting in inextricable confusion and breaking up of the higher units during the retreat. Oku, advancing with the 2nd Japanese Army on a broad front, brushed aside the Russian rearguards during the earlier part of the 3rd; but stayed the pursuit when his army had reached its allotted line for the day. Had he known the state of disorder of the Russians, whose troops and transport were hopelessly mixed up about the Hun Ho crossing at Ma-kia-pu, a few miles further on, the weak Russian rearguards could not

have saved Launitz's corps from utter destruction. As it was, the respite gained enabled the Russian commander to reorganize his units during the night.

Throughout the operations of March 3rd, Marshal Oyama abstained from interfering in the course of the battle, and was kept well informed of all that was occurring. On the other hand Kuropatkin was not aware, on the forenoon of the 3rd, of the whereabouts of either Bürger's force or Grekov's Cavalry Corps. But he knew about 11 a. m. of Launitz's and Kaulbars' situation.

The Russian Commander-in-Chief had in his mind an intention to assume the offensive in great strength against the Japanese enveloping movement west of Hun Ho; and in the meanwhile was apparently averse to portions of his withdrawing forces taking advantage of tactical successes offered to them. Consequently Kaulbars was directed not to advance with the troops concentrated by him before Sa-lin-pu, except where necessary, until the Commander-in-Chief was ready to attack with his united strength. When that time would arise was uncertain—"tomorrow or the day after should we not be attacked by the enemy ourselves today." Launitz was to hold both banks of the Hun Ho with part of his force in the neighbourhood of Ma-kia-pu, and to concentrate his main body about $1\frac{1}{2}$ miles north of that place on the morning of the 4th. Witte's detachment of 12 Battalions and 24 guns from the 3rd Army came into position during the 3rd on the right of Topornin, some 5 miles north west of Mukden; and the 1st Siberian Army Corps about 3 miles west of Mukden, and in rear of the fronts held by Topornin and Launitz. Strong forces, therefore, had been concentrated close to, and west of Mukden: and on the evening of March 3rd the Russian Commander-in-Chief thought he had assembled sufficient for the counter offensive, which he now planned for the 4th.

But at the same time chances had been missed of gaining tactical advantages on the 3rd. If the strong intact reserves at Sa-lin-pu had been staked, it seems certain a victory there would have been gained. Even if the report of

the advance of another Japanese Division away on the right had been correct, the official account states that "The boldest, and at the same time also the most expedient course of action would have been to settle, once for all, first with the enemy at Sa-lin-pu, and then to turn against the supposed new adversary." And a Japanese writer admits that the Japanese 3rd Army was in an extremely dangerous situation at the beginning of the battle. The Russians themselves condemn the light-hearted breaking off of the engagement by Kaulbars; and his action receives very severe criticism at the hands of the Japanese. The responsibility must in some measure be laid on the Russian Commander-in-Chief, who had failed to express his views with sufficient clearness to preclude all doubts as to his intentions.

As pointed out, "The difficult task of General Headquarters is to leave subordinate commanders a free hand, and yet at the same time, by distinctly stating the purpose, to see that the action of every unit is directed upon one single object But it must never be lost sight of that the chief thing is always to gain a tactical success, wherever there is a chance for it." The when and where is a matter for the subordinate commander to decide.

Grekov and Bürger acted similarly to Kaulbars on March 3rd. Had Grekov marched south east covering Bürger's march, he should certainly have defeated Akiyama's far inferior Japanese Cavalry; but he calmly remained north of Kau-li-tun although he had been informed of the departure of Bürger's brigade from that place. Consequently Bürger stumbled across Akiyama's force and merely attacked to clear his own line of retreat towards Mukden. A Japanese comment on this action at Ta-fan-schan—only 7 or 8 miles north of that at Sa-lin-pu—is that "If General Bürger had attacked us in force, and with the necessary energy, he would have knocked us to pieces".

A comparison is made with the action of the Japanese generals. Nogi sought a decision with the enemy's main forces at Sa-lin-pu. In order to keep off Bürger he sent his own cavalry far away on the flank, reinforcing it with weak infantry and machine guns. As soon as Akiyama heard of

Bürger's approach he dismounted his men, and although his position was unfavourable, and the action took an unfavourable turn, he held to his ground until, to his surprise, the enemy retired.

The following Japanese comment is of particular interest at the present moment when our cavalry are fighting in the trenches in France. "Akiyama's force tried a dangerous game and won it splendidly. We had never believed so far that cavalry dismounted for fire action could defeat a serious infantry attack. But this example from military history proves this view to be wrong, and that cavalry, when properly and deliberately led, is well able to carry through a fire fight with vigour and firmness. We therefore should not underrate cavalry, as is so often done today".

Neither did Nogi retire when about 9 a.m. the action at Sa-lin-pu was going against him, although there was no chance of the 9th Division arriving in time to assist. He also held to his position, and the enemy retired, suffering heavily in the process. The effect of the voluntary retreat equalled a defeat. "With modern fire arms and tactics, breaking off actions which have progressed for some time, as here, can only be conducted in an orderly manner, generally, if it is carried out after having gained an advantage; or under cover of darkness, after it is prepared by day. During daylight it is better to hold out, even if the situation is unfavourable, as it may at any moment take an unexpected turn, than to make the attempt of disengaging oneself from the enemy."

Kuropatkin's measures for his intended counter-stroke on the 4th receive unfavourable criticism. Although intending to take command west of the Hun Ho himself, he left the choice of the direction of attack to Kaulbars, to whom he gave very hazy instructions: and it seemed as though he proposed to attack in stages, which had already proved fatal in the battles of Sha Ho and San-de-pu. He apparently aimed only at delivering a blow, and not at forcing a final issue. In the opinion of the German General Staff the effects of his retrograde movements up to, and on,

the 3rd were the same as the result of lost actions; and it remained to be seen whether the troops were now equal to a vigorous attack.

So far does this official account carry us; and for the sequel we must be content to await the publication of Part II of the Battle. But that good troops are equal to resuming a vigorous offensive, after a continuous retirement under most discouraging circumstances, recent events in France have shewn; and the Russians, and Germans themselves, have also proved in Poland and East Prussia that, where the directing hand possesses sufficient skill and resolution to seize a favourable turn in the tide of events, there need be no despair as the accompaniment of retrograde movements. Indeed, the backward and forward way of the opposing forces, west, east and in Servia, has been one of the most striking strategic features of the mighty conflict now raging in Europe.

Times History of the War. Parts 20-26.

Chapter XXXVIII gives an account of the magnificent assistance afforded to the Empire by Canada, Australia and New Zealand, who, in addition to numerous gifts in money and kind, supplied a total of over 3 Army Corps to the armies of the Empire, captured German colonies and afforded material assistance to the Navy.

Chapter XXXIX describes the organization of the Serbian and Montenegrin armies and Chapter XL gives an account of the invasion of Serbia and the repulse of the Austrian forces in August 1914. It is difficult to follow the operations in this latter Chapter owing to the inferiority of the maps supplied and to discrepancies in the spelling of the names in the text and on the maps.

Chapter XLI describes the arrival of the Indian Contingent in France and is written in the melodramatic style which appears to be *de rigueur* in dealing with the Indian Army. It is pleasant to see, however, that the author contradicts the ridiculous tales of the individual prowess of the Gurkhas and the "Bengali Lancers" with which we were regaled shortly after the arrival of the Indian troops in France.

Chapter XLII is an interesting chapter, dealing with the fighting near Neuve Chapelle in October 1914, the visit of Lord Roberts to France and his death there. But it is marred by the illustrations, in which followers are represented as soldiers, Garwhalis are called Gurkhas, officers' led horses are called pack mules and an infantry soldier is labelled "Indian 2nd Lancers."

Chapter XLIII, which forms the whole of Part 23, describes the raids by German cruisers on the east coast of England. The episodes were of no importance except as incentives to recruiting and the chapter may be omitted by military readers.

Chapter XLIV gives a description of the bombardment and capture of Tsing-Tau by the Japanese and a small British force. Again the fatality, which appears to dog attempts to illustrate Indian troops, is apparent, for Chinese

drivers of Indian transport carts are called "British Indian troops."

Chapter XLV, dealing with the behaviour of Paris during the earlier stages of the war and the transfer of the Government to Bordeaux is of little interest to military readers.

Chapter XLVI, which takes up the thread of the history of the war in the west from the point where it was dropped in Chapter XXXIV, is of the greatest interest. It describes the extension of the Allied left wing towards the Belgian coast which, though it failed in its original intention of turning the German right, and relieving Antwerp, yet succeeded in saving the majority of the garrison of that town and preventing the concentration of the Germans further to the south-west for an attack near Verdun and was an excellent piece of staff work and is well worth studying as such. This chapter forms the end of the 2nd volume of the History.

Parts 27 to 35.

Chapters XLVII to LIX which compose the first part of the 3rd volume of the history are more interesting to a military reader as they describe, for the most part, the course of events that have actually happened, and, with the exception of chapters XLIX, L, and LVIII, deal less with the military preparations of various powers and the political factors which caused various countries to take the sides they did in the war.

The field covered by these 13 chapters is most varied; it deals with the extension of the Allied line to the Belgian coast and the retirement from Ghent and Ostend, the capture of Ypres and its wonderful defence against the German rush in October 1914, the entry of Turkey into the war, the invasion of Mesopotamia by a British Indian force, the career and destruction of the "Emden" and "Konigsburg." The naval actions off Coronel and the Falkland Islands, the loss of the "Bulwark" and the "Formidable," the air raid on Cuxhaven, the action in the North Sea resulting in the sinking of the "Blücher," the first Russian invasion of East Prussia and their defeat at Tannenberg, the conquest of Galicia and in-

vestment of Przemysl, the proclamation of a British protectorate over Egypt, and the end of the Turkish suzerainty, and the first and second attempts of the Germans and Austrians to capture Warsaw.

The maps are clear, but would be handier if they unfolded clear of the letter press, the illustrations are good and the portraits, as far as one can judge, excellent.

The Year-book of Wireless Telegraphy and Telephony.

Wireless Press, Marconi House, Strand, London, W.C. Price Rs. 3-6.

The publication of the 1915 issue of the "Year-Book of Wireless Telegraphy and Telephony" reminds us very forcibly of the immense progress that has been made in the extension and development of this form of communication during the last twelve months. The new volume of some 800 pages which lies before us serves not only as an admirable book of reference for all who have to do with the subject either in its commercial application or in the field of research; but also includes a complete historical resumé of the development of etheric wave telegraphy from its inception to the present day. All of us like to know something about the main factors which play their part in modern life, and some of us like to penetrate a little further into mysteries, whilst others again already well informed, are anxious to keep abreast of the latest developments. All three classes will find in the "Year-Book of Wireless Telegraphy" exactly what they require.

Dealing with the main features of the book we come first to a carefully compiled calendar succeeded by the exhaustive chronological account of the progress of wireless telegraphy above referred to. Here we have a chronicle in diary form showing at a glance what inventions and improvements were introduced in any particular year. This is followed by the full text of the International Radiotelegraphic Convention—a contribution of great value embodying the concerted policy of all the Governments in relation to wireless telegraphy. Incidentally it exemplifies the high importance officially attached to the new form of communication. The Safety of Life at Sea Convention stands next, the prominent part played

therein by the various recommendations with regard to the employment of radiotelegraphy being specially notable. We then proceed to the text of the laws and regulations which are applied by the various countries to the control of Wireless Telegraphy both in relation to land and ship stations. A further extremely valuable feature, and one which should make a particular appeal to all interested in Wireless Telegraphy is the complete list of all ship and shore wireless stations, together with their call signals and many other particulars. For this feature alone, a copy of the Year Book of Wireless Telegraphy should be in every office, as it shows at a glance what ships are fitted with wireless apparatus, and the coast stations through which communication with them can be established. This list, together with the large and excellent map of the wireless stations of the world which is also provided, goes further than anything else we know to impress on the mind of the reader the world wide field covered by wireless telegraphy. For ready reference the volume also includes an alphabetical list of call letters. In addition to the tabulated information which is a valuable feature of the book, our attention is drawn by a series of original articles contributed by eminent experts and scientists.

Mr. Archibald Hurd the well known naval critic of the "Daily Telegraph" contributes an able article on "Wireless and War at Sea" and the celebrated writer on military subjects, Colonel F. N. Maude describes the influence of Wireless Telegraphy on Modern Strategy.

Amongst the more technical articles we find a dissertation on "The Function of the Earth in Radiotelegraphy" from the pen of that eminent authority Dr. J. A. Fleming. "Wireless Telephony" by Mr. H. J. Round summarises the progress that has been recently made. It is of particular interest to note that Mr. Round at Marconi House was able to receive telephone conversation by wireless from Berlin last year, although the success of experiments was not complete. When one considers that *wire telephony* with Berlin is a very recent achievement, the news that long distance *wireless* telephonic communication has been in a measure

achieved will come as a great surprise to many. Dr. W. H. Eccles, whose work in connection with wireless telegraphy is well-known, contributes an article on Radiotelegraphic Research in 1914. Amongst further noteworthy articles we find important contributions on Wireless Long Distance Service, Wireless Telegraphy and Meteorology, and International Time Signals.

Epitomised Biographical Notices of practically everyone of note in the world of Wireless Telegraphy, particularly of the various Companies which are concerned in the development and exploitation of wireless telegraphy, and a long list of Patents and Patent Applications for the year 1914 all add to the volume as a book of reference, whilst the technical man and student will find the tables, Formulae and Equations of the utmost value. Amateurs will welcome the Directory of Wireless Societies, and the learner will turn with pleasure to the reproduction of all the signs and signals of the Morse Code.

Bombay (the Gate of India). A Guide by Major H. A. I. A. Newell, Rs. 1.

Major Newell continues his series of useful and inexpensive guides with an account of the City in which he was born. Notwithstanding that the Major's acquaintance with Bombay seems a trifle out of date, there is no denying the value of his book as an unambitious compilation. The style borders perhaps on journalese. We do not altogether like 'fashionable eminence' for Malabar Hill, and the description of the University library, with its picture of books lining the wall and "cool scholastic glow", savours of the stereotyped, as though one were to look up in a special dictionary what were the proper things to say of a University Library. Much the same applies to the "sweetly-chiming peal of sixteen bells" in the Rajabai clock tower. The fact is that it is not now, as it hath been of yore: the sounds we once have heard, we now can hear no more. It had been wiser if the author had enquired more carefully into the accuracy of his details. More

astonishing still, Major Newell seems quite unaware of the existence of taxi-cabs. Yet this is just the feature which first strikes the newcomer, the number of luxurious motor cars for hire. After all there are not many towns where you can find a Silent Knight Minerva on the cab rank.

Though we have to confess a private fear that the guide before us is more of a compilation from other guides than an original product, there is no denying its utility as a not tiresome description of the main points of interest. It begins with a map which, though of little value strategically to an enemy contemplating a meticulous blockade, would suffice for the purpose of directing that notoriously ignorant vandal, the Bombay gharriwala, to the striking scenes of the town. It ends with what from the nature of the subject matter remains the most entertaining feature of the book, a history of Bombay from the earliest times. Anyone who cares to trace matters to their beginnings and see again how great things arise out of the most insignificant causes will find this history very instructive. It is after all places like Bombay and Surat that are the birth-place of the British Empire in India, and men like that extraordinary combination of tact and energy, Gerald Aungier, who are the real founders of our greatness. Naturally one expects to hear more than is actually given about this great Englishman. But it is unfair to demand of so slight a historical sketch, and of a book with so limited a purpose, the detail which would make Aungier appear at his proper value as a pioneer of Empire.

We regret the author has not sent his tourist a little further afield than Vehar Lake and Thana. ('Fifty', by the way, on p. 55 line 1 should be 'fifteen'). Not much further than Thana is to be found that exquisite relic of Portuguese domination and enterprise, Bassein, situated over a beautiful creek, the whole presenting a picture which not a few visitors have thought one of the most charming things they have seen in India. On the other side of the creek is Godh Bunder, equally pretty but more accessible; for there is a good road from Bombay through Santa Cruz to Godh

Bunder, and the drive by moonlight through Mahim Woods and beyond is most romantic. The tourist who has grown tired of the smells of the bazaar and the dark caves of Elephanta could not do better than refresh his soul with this beautiful natural scenery.

One point further. A history of Bombay is not complete without some mention of the distinguished Indians whom the City has produced or at least nurtured, men like Dadabhai Naoroji, Ranade, and Gokhale. It is no exaggeration to say that Bombay has produced the finest type of public men India has known in the last fifty years. But we can scarcely expect the intellectually indolent tourist to regard their names as anything but more or less cacophonous trisyllables. Realising how ignorant and uninterested the average tourist is in anything beyond ancient relics, Major Newell has confined his attentions to producing what remains a readable and concise description of a very interesting town. It is a pity he excuses himself for his effort by quoting Sir Walter Scott's "patriotic lines" about the hypothetical dead-souled man who never says to himself "This is my native land." We cannot repress the feeling that, there is something disingenuous in the excuse, and the quotation is trite enough in itself to scatter all emotion.

Notices of Books.

The Soldiers First Aid Book. M. Theresa Bryan, MacMillan and Co. 2d. net.

A useful little book clearly written, well printed and of convenient size.

Notes on first aid for N. C. O's. and men. Messrs. Gale and Polden, Aldershot, 6d. net.

A well written book in single language with clear diagrams of Principal arteries.

The Active Service Pocket Dictionary. Messrs. Gale and Polden, Aldershot 1s. net.

This little dictionary is especially written for the rank and file and contains many useful words and phrases in

French, German and Russian—The Bronchi Pronunciation is given in each case. It is clearly printed and the covers are strong. A Pocket is Provided.

"Tips for the Front." Messrs. Gale and Polden, Aldershot 6d net.

A little book containing much useful information. It has the great merit of being for use before actually going on service and the ideas once mastered and put into practice, the book itself need not be carried which will appeal to the already over burdened soldier.

"First Principles of Tactics and Organisation (War Edition 1915)" by Major J. L. Sleeman, Messrs. Gale and Polden, 2s 6d net.

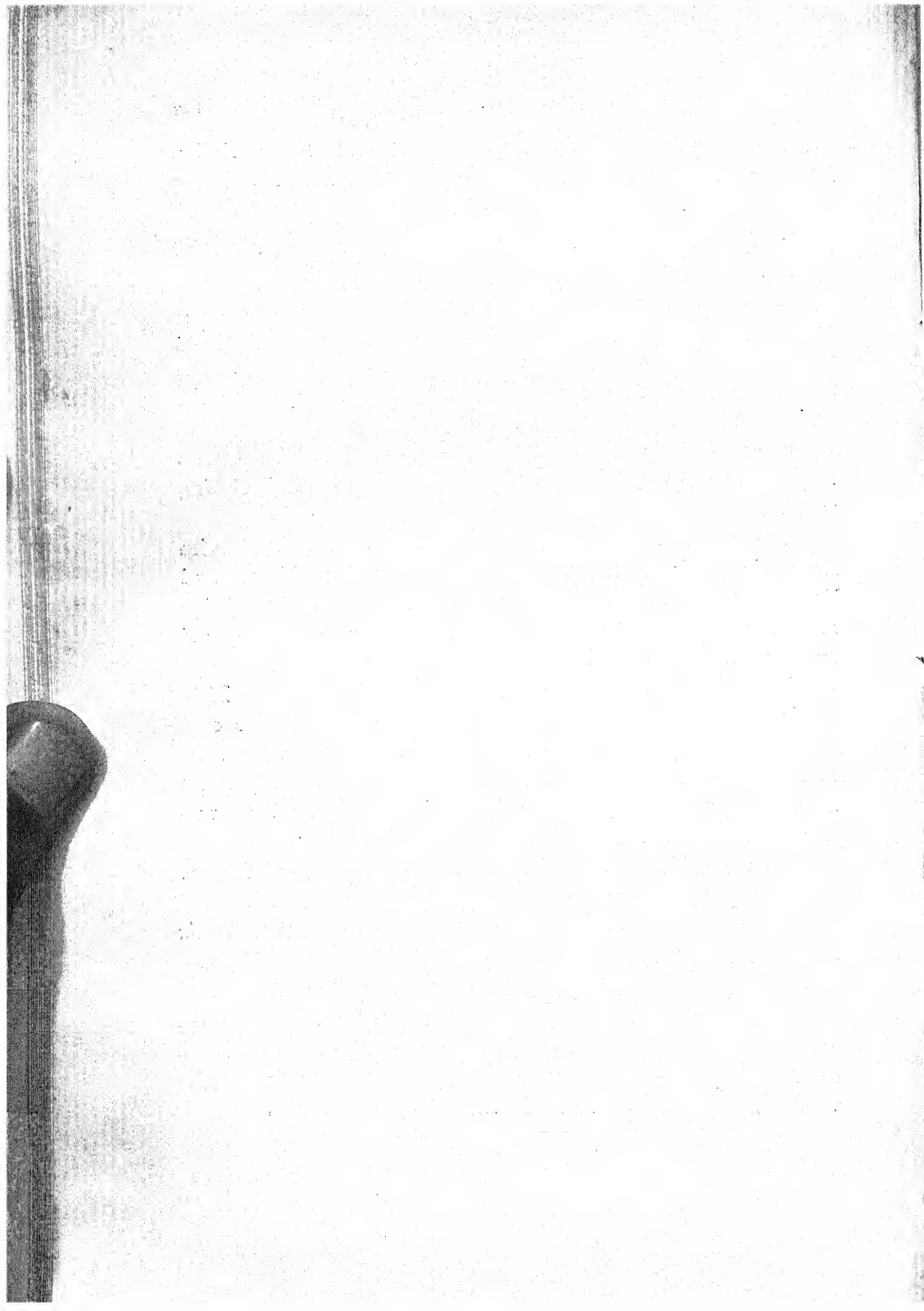
The book, (to be read in conjunction with Field Service Regulations,) is intended to give the young Officer and Non-commissioned Officer a lead in acquiring a knowledge of Military Science up to the extent likely to be required by him on service, and appears to fulfil its purpose.

Though following, to some extent, the lines of the Field Service Pocket Book, it deals with what the Author considers the essential points only, and it amplifies and in some cases restricts these in accordance with lessons already learnt from the present war. There is an interesting and instructive chapter on Air Reconnaissance.

It is considered that the book should prove of decided value to young officers and non-commissioned officers.

"The Indian Army A. B. C." by "MYAUK" (Captain J. W. J. Alves) Messrs. Thacker, Spink & Co., One Rupee.

An alphabet of daily life in the Indian Army, illustrated with humorous sketches, which will help to relieve the tedium of the "long long Indian day" and raise a laugh even on Olympic Heights. It is hoped the author will give us all the benefit of more of his wit and humour.



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The Operations in Mesopotamia.

BY MAJOR C. C. R. MURPHY, GENERAL STAFF.

Three weeks ago a very interesting lecture on some aspects of the war in France was delivered in this building. That lecture dealt with the main theatre of the great war; to-day I have been invited to address you on one of its side-shows, namely the operations in Mesopotamia.

Force "D", as the Mesopotamian Expeditionary Force is conveniently termed, left India on the 16th and 18th of October, and consisted of the 16th (Poona) Infantry Brigade, the 23rd and 30th Mountain Batteries, and a company of Sappers and Miners, the whole being under the command of Brigadier-General Delamain. This force was destined for Bahrain. It was known that Turkey, under German influence, was only waiting for a favourable opportunity to declare war. She had already threatened the British population of Basrah, and also the British warship in the neutral waters of the Karun. General Delamain's brigade was, therefore, ordered to rendezvous at Bahrain as a precautionary measure in case the Turks should try and destroy the Anglo-Persian Oil Company's works at Abbadan in Persian territory which works were of much importance to us. The transports were escorted up the Gulf by *H. M. S. Ocean*,* and just as they were getting near Bahrain a waterspout rose up ahead of them. It was of

*Sunk in the Dardanelles by a floating mine on the 18th March.

such a size that the whole convoy had to alter course to get out of its way and eventually the *Ocean* fired one of her big guns at it and burst it.

✓ Bahrain is the name of the whole archipelago, as well as of the largest island in it. It is not
 Bahrain. a British Protectorate but it is under British protection. A striking feature about this group of islands is the lowness and levelness of the land and the shallowness of the environing sea. The whole of this particular portion of the Gulf, with the exception of one channel, is a mass of reefs and shoals, and Bahrain can scarcely be called a port at all. Ships drawing eighteen feet have to anchor three miles out, and *H. M. S. Ocean*, which was drawing about 27 feet, had to lie 14 miles out. There are but few interesting points about Bahrain. One is that in the island there are 12 square miles of prehistoric tumuli of which I will show you a picture. Another is that the inhabitants of Muharraq, the second largest island in the group, have to depend for their water-supply upon submarine springs, the water being collected in skins at a depth of from 2 to 9 feet below the surface of the sea. Then, of course, Bahrain is a great centre of pearl-diving, and large quantities of pearls are sent annually, *via* Surat and Bombay, to Paris, New York, and London. Those of you who have relations with Force "D" may be interested to hear that pearls in Bahrain are now about one-third the price they were a year ago; only please do not say who told you so. Another very interesting thing about Bahrain is an ancient Carmathian coin that is to be met with there. The Arabs call it *tawilah*, or the long bit; it is made of copper and has a curious shape. I will show you a picture of one. It is worth rather less than a farthing and is one of the oldest current coins in existence.

Shortly after our arrival in Bahrain, some of us were sent to arrest a German named Harling who was Wonckhaus' agent there. As we entered his office he was just

signing a letter which we picked up and read. It turned out to be a report on the strength and composition of Force "D", and was addressed to the German Consul at Bushire. It finished up with the remark that so far only about 5,000 troops had come up the Gulf, but that 10,000 more were shortly coming from India. Amongst his papers we found a copy of another report giving accurate details of General Delamain's force. This report had been written and despatched to Bushire and Basrah within four hours of our arrival at Bahrain. At the time of Harling's arrest a dhow was waiting to take this second letter away. In connection with this incident it is interesting to note the rapid rise of the remarkable firm to which Harling belonged. In 1896 Wonckhaus came to Lingah and started business there by buying shells on the beach. Practically his entire possessions at that time consisted of three wooden boxes which he used to place in a row at night and sleep on. Five years later he moved across to Bahrain which he made his headquarters, and shortly afterwards he opened a branch at Basrah. In 1906 the first Hamburg-Amerika liner came up the Gulf, and its arrival there was made the occasion of great rejoicing by the Germans. The steamer entered each port with the band playing, and one and all were invited to dinner and filled with champagne. Wonckhaus was made Agent to this line. By the time war broke out Wonckhaus had business houses at Basrah, where his headquarters were, Bushire, Bahrain, Lingah, Muhammarah, and Ahwaz. Their agents were well paid, the partners were rich men. Their houses and offices were luxuriously furnished, and every month they used to remit large sums to the Baghdad railway. Everyone wondered where the money came from. It certainly was not all obtained from profits. In 18 years this romantic shell-collecting business had grown into a vast and widespread enterprise. It is not too much to say that the aims of this firm were firstly political and secondly economic, and that

its representatives were all trained intelligence agents.

(Bahrain has no wireless station and no telegraph office, and is, therefore, entirely cut off from the rest of the Persian Gulf. To get over this difficulty *H. M. S. Ocean* was kept at Bahrain and *H. M. S. Dalhousie* was sent across to Bushire. It was hoped that by this arrangement we should be able to keep up communication by wireless with both Bushire and Jask, but for some unexplained reason the wireless system entirely failed and we were rarely able to get either place.) During the first week we were at Bahrain I failed to get a single message from my informers in the Shatt-al-'Arab, and eventually I had to go across to Bushire to find out what was going on!

On October 30th, the British Government learned with the utmost regret that some Turkish war-ships, without any declaration of war, without warning and without provocation of any sort, had made a wanton attack on open undefended towns (in the Black Sea) of a friendly country, thus committing an unprecedented violation of the most ordinary rules of international law, comity, and usage. In consequence of this, war with Turkey was declared on the 31st October, and General Delamain's force, which had not disembarked, left Bahrain on November 2nd. I was in Bushire at the time but managed to pick up the convoy at sea on November 3rd off Kharag Island. That evening we anchored near the outer bar, some 15 miles from Fao Fort. The next two days were spent in mine-sweeping, and on the evening of the 5th we moved up to within $7\frac{1}{2}$ miles of the fort. The bar at the entrance to the Shatt-al-'Arab is the great blemish of that waterway. At low tide there is only about 13 feet of water on it, but at spring tides a ship drawing 22 feet might scrape through with luck.

It will be convenient at this stage to review very briefly the military situation in Mesopotamia as it was at the outbreak of war.

Situation in Mesopotamia on Oct. 31st.

(Owing to the menacing attitude of Turkey and the certainty of her being eventually goaded into war by Germany, I had sent off one of my gun-running agents from Bushire at the beginning of September to find out what was going on in the Basrah Vilayet.) This man was a Pathan who spoke Persian well and had once been in an Indian cavalry regiment. On the plea of making enquiries about a *jihad* which he pretended to be anxious to join, he was allowed to ramble about the Turkish and Arab camps for nearly six weeks. He used to watch the Wonckhaus coterie travelling up and down the river in the Turkish gunboat *Marmaris* and showing the Turks where to put their guns. This was, of course, long before war had broken out. My informer got back to Bushire just before I left for Bahrain. The information he brought with him was excellent and proved to be of great value to General Delamain. (According to reports from this and other sources, the distribution of the enemy's forces at the outbreak of war was as follows :—)

The 35th and 36th Divisions of the XIIth Army Corps, and the 37th Division of the XIIIth A.C., were in northern Mesopotamia; the 38th Division was at Balyaniyah, and comprised 7 battalions of which one belonged to the Gallipoli A.C., and was composed of Anatolian and European Turks. In and around Basrah there were 4 or 5 Field, and 4 or 5 mountain, batteries. There were several machine guns, and over 1,000 gendarmes. To these must be added the Basrah Arabs who, on receipt of the order for mobilization, had been impressed into the service in large numbers and armed with government rifles. There were, in addition, a good many Arab tribesmen who were well armed.) (At the lowest estimate, therefore, there must have been opposed to us about 8,000 men, including some horsemen, and 32 guns.*) (Our force on the other hand consisted of about 3,800 men,

* Irrespective of any reinforcements which might have come down from Baghdad.

with no cavalry and no field artillery, and only 2 mountain batteries, so that numerically the enemy were twice as strong as we, and possessed far greater gun power.)

It was known to us at this time that the Turks had sunk four ships at the lower end of Shamshamiyah Island by way of blocking the channel. One of these ships was the Hamburg—Amerika Liner, *Ekbatana*, of 5000 tons; the others were small Turkish-owned vessels. The Turks made a poor job of this obstruction, for the ships settled down in the shoal water leaving the fairway open. It would have been a simple matter to have salved the *Ekbatana* if the work had been undertaken before the river got high. However, the river gradually rose and the ship sank deeper into the mud, and by the end of March you could drive a motor boat over her. The reason that this place was chosen for the sinking of the ships was that here the channel changes over from the Persian to the Turkish bank, passing between the islands of Shamshamiyah and Umm-al-Khasasif. The Turkish main concentration was close by at Balyaniyah where they had erected a battery on the river bank to command the obstruction. There were 2 Turkish Batteries on Shamshamiyah, and 3 guns on Umm-ar-Rassas; and there were 2 guns and 300 men along the Turco-Persian frontier on the Khaiyin Creek. The Turks had infantry posts on the islands of Shamshamiyah, Umm-al-Khasasif, and Umm-ar-Rassas, and also at Umm-al-Ghuraib and Umm-ar-Ruwais. At Fao they had only about 50 men, with a field battery on the fore-shore just to the north of the fort. This so-called fort was only a walled enclosure which was not even defensible as there were no banquettes or gun-platforms to fire from. This work was begun nearly 19 years ago, but some of the money allotted for its construction seems to have been mis-applied. The fort is, moreover, almost entirely shut in by date palms. It was commanded by a Bimbashi who was styled the "Bimbashi of Fao Fort," but he always lived at Basrah. As regards ships, the Turkish gunboat *Marmaris*

was in the Shatt-al-Arab, and the British sloop *Espiegle* in the Karun river. There were no British warships within Turkish territorial waters.

In considering the attitude of the more important Arab Shaikhs and rulers it will only be necessary to remember that the Shaikhs of Kuwait and Muhammarah are our allies and that Ibn Sa'ud, the great chieftain of central Arabia, had not only thrown in his lot with us but was about to make war on his inveterate enemy, Ibn Rashid (who had been got at by the Germans) and thus prevent him from co-operating with the Turks. The Sharif of Mecca, a dignitary of great influence, was known to be on bad terms with the 'Turks and to have a great contempt for their methods. What was of still greater importance, he had refused to proclaim a *jihad*. Amongst the chiefs hostile to us were Ajaimi, Shaikh of the Muntafik, and Ghadhban, Shaikh of the Bani Lam. The Wali of Pusht-i-Kuh and the Bakhtiari Khans had declared their neutrality, and were maintaining a satisfactory attitude. That is briefly how matters stood at the time of the rupture of negotiations with Turkey.)

Early in the morning of November 6th, our convoy, under the protection of *H. M. S. Odin* and 2 small armed launches (one of which was commanded by an engineer belonging to the A.P.O.C,) weighed anchor and moved up towards Fao. The Turkish battery opened fire at 5,500 yards, and the *Odin* immediately replied with her 4" guns. By the time she had closed to within 1,700 yards the Turkish battery had ceased fire. The enemy's guns had been in action barely an hour, and had only fired about a dozen rounds apiece. Their infantry then fired a few ineffective rounds at a long range and decamped. The Bimbashi of Fao Fort was blown to pieces by a stray shell just as he was mounting his horse. This was bad luck as it was probably his first visit to the place. The Turkish casualties were 8 killed and wounded; ours were

Attitude of certain
Chiefs.

Bombardment of Fao.

nil. That afternoon a combined naval and military force landed at Fao telegraph station without opposition and the same evening Fao Fort was surrounded and found to be unoccupied. A few tents and a considerable quantity of equipment and supplies were found inside. Thus easily Fao passed out of the hands of the Turks. When its garrison reached Balyaniyah the Turkish commander was so enraged at their conduct and at the loss of Fao that he had three of them shot to encourage the others.

The British telegraph operators at Fao had been able to keep up communication with Bushire till about 5 p. m. on November 3rd, after which it had ceased entirely. On our arrival at Fao we found all the telegraph instruments there smashed, and that the cable had been cut. The cable runs westwards from the station up a creek and then southwards into the Khor 'Abdullah, and not as shown on some of our maps. One of the first things to be done was to locate the cut, and great difficulty was anticipated in doing so. However, it was discovered almost at once because the Turks had carefully left the ragged end of the cable sticking up out of the mud. But for this the telegraph ship would have had to have gone out and grappled for the cable and then joined on a new length of perhaps several miles, an expensive business seeing that the cable costs about £200 a mile. Even as it was the cable was not put right for nearly four weeks and during that time we had to depend for our communication with India on our unreliable wireless, and the Muhammarah-Bushire land line which was generally interrupted. During the bombardment of Fao the *Espiegle*, which had now come down to the Oil works at Abbadan, was subjected to a heavy rifle fire and had two of her crew wounded. The next day the transports and escort moved up the Shatt-al-'Arab to a point 16 miles below Abbadan. The journey was uneventful but for a little sniping at one of the transports. On the 8th we moved up to Abbadan where we met the *Espiegle*. We were relieved to

find the oil works intact and all the company's employees safe. General Delamain at once pushed on to Saniyah* where we commenced to disembark at a point some 2 miles above the refinery. Here an entrenched camp was made. The disembarkation was completed by the 10th, and General Delamain decided to remain here and await his reinforcements. It was now 18 days since we had arrived at Bahrain, and we knew that through the offices of the two Germans Harling and Listemann our movements as well as the exact composition of our force had been communicated to Subhi Bey,** so General Delamain was naturally a little anxious to hear more of the 10,000 troops which, according to Harling, were shortly coming from India.

During the night of the 10th-11th, at 2-20 a. m., we received a message from a friendly Shaikh to the effect that about 400 Turks, under one Sami Bey, intended to attack the camp either that night or at dawn, and that their intention was to make for two mounds near the western edge of our camp. This report was at once communicated to the outposts, and then we all lay in wait. At 5-30 a. m. when it was still quite dark, a single shot was fired. After a short interval half-a-dozen more shots followed, and then came a tremendous fusillade. The 400 Turks under Sami Bey had arrived and were making for the two mounds, exactly according to programme. It is not often that a force commander obtains such precise and timely warning of an attack. The firing continued briskly, and as the sun rose two large bodies of the enemy were observed from the crow's nest of the *Espiegle* to be advancing across the desert towards our camp. Soon the firing began to slacken and these two bodies of

Force "D" disembarks
at Saniyah.

Saniyah Camp attacked.

*The Saniyah tract belonged to the Sultan of Turkey.

**It is definitely known that Subhi Bey received Harling's report on the 29th October. Subhi Bey, therefore, had had ample time to get large reinforcements down from Baghdad. The river journey from Baghdad to Basrah can be completed in 6 days even if the steamers tie up at night.

the enemy were seen retiring. They were the enemy's supports and reserves, but the 400 Turks who had made the attack had met with such a terrific reception that they were rolled up before they could be supported. Our preparedness was, therefore, in a measure a misfortune because if the enemy's supports and reserves had had time to get properly into the fight their casualties would have been much greater. The Turks under Sami Bey were Anatolians and Europeans, and belonged to the 26th Regiment which ordinarily forms part of the 3rd Army Corps in Gallipoli. The enemy had about 80 killed and wounded in this attack, and lost a few prisoners. In one place we found the dead bodies of almost a whole section. They were all lying there fully equipped and accoutred, and extended to about three paces, most of them having been killed in the act of firing. They were all armed with new Mauser rifles, with long bayonets, and they had any amount of excellent ammunition with the new pointed bullet. During this attack the Turks used hand-grenades, but they were of an indifferent type and did little damage. Some of their wounded opened fire on the stretcher bearers whom we sent out to pick them up.

After this defeat the enemy took up a position about 4 miles away, in the tract called Saihan. It was known that their main concentration was at Balyaniyah, and owing to the breakdown of the wireless and our consequent inability to get news of our reinforcements, General Delamain considered it imprudent to attack the Turkish position at Saihan situated at it was within striking distance of superior enemy forces. Suddenly, however, we got a message from Sir Arthur Barrett saying that he had arrived at the mouth of the river and that he had had no word from us since he left India. It then transpired that 5 transports full of reinforcements were already at the bar.

That morning, the 14th November, I went off to try and find out how the enemy's troops were disposed along the river bank. I went down to the Oil Works and walk-

ed across Abbadan Island to the Bahmanshir river where I hired a small native boat and went up to Muhammarah. The Turks were then busily engaged in making earthworks on Umm-ar-Rassas island, and we spent that evening watching them. The next morning I started off before daylight with a party of Arabs, the Shaikh of Muhammarah's men. We walked down the left bank of the river, taking note of the different bodies of the enemy in the date palms opposite. Soon we heard firing and by the time we had got abreast of Saihan a general action was in progress. When I got back to camp I found out that as soon as General Barrett had arrived he had ordered General Delamain to make an attack on the Saihan position. I mention this incident to show the curious conditions under which we were fighting, and how convenient it is in river operations to have one bank neutral.

Saihan
stormed.

position

General Delamain's attack was completely successful, the Turks being driven from their trenches with considerable loss. Our own casualties were very slight and did not exceed 70 killed and wounded.

(On the morning of the 14th November the *S. S. Elephant*, with General Barrett's headquarters, and four other transports came up the river and anchored opposite Saniyah where General Delamain's force had been bivouacking since the 8th. The disembarkation of troops was begun at once. The infantry used the ships' boats and experienced no difficulty in getting ashore. The landing of the guns, wagons, and horses of the R. F. A., and the cavalry horses, in lighters and dhows, was delayed by the strong tide and the current, the want of suitable landing places, and by the shortage of lighters and steam craft for towing purposes. The hatch-covers of the transports were used as ramps for the horses and guns. The only regrettable incident that occurred was that two mules fell overboard in mid-stream. One swam towards camp and was soon with his fellow *khachars*; the other one, evidently a pro-German, swam

towards the opposite bank where he landed and violated Persian neutrality.

General Barrett's information on the 16th November was to the effect that a force of the enemy would

Battle of Zain.

probably be met with in the Zain tract, while his main body was believed to be at Balyaniyah. At that time the cavalry, sappers, and the infantry of the 18th Brigade had been landed, but only one battery of the 10th Brigade, R. F. A. General Barrett was aware that the Shaikh of Muhammarah was apprehensive of an attack on Failiyah by the forces of the enemy on the left bank of the river, and also that the attitude of the riverain Arabs would depend to a great extent upon our ability to make rapid headway against the Turks. He, therefore, decided to advance at once with the troops at his disposal, leaving the remaining field batteries to be disembarked as rapidly as possible and to come along after us. General Barrett's intention was to turn the enemy's right flank and drive him through the palm groves on to the river so that the sloops might have a go at them.

Our force, consisting of 2 Brigades under Generals Fry and Delainain, 1 field and 2 mountain batteries, 2 squadrons of cavalry, and 2 companies of S. and M., left Saniyah camp at 6 a. m. on November 17th, and moved across the open desert the surface of which owing to recent rain was still very muddy in places, though fortunately free from creeks and other obstructions. At 8-50 a. m. a report was received from the advanced guard to the effect that the enemy's position extended from an old mud fort, which was now plainly visible somewhat to the right of our line of advance, north-westwards to the white mosque of Mir Abul Hasanain. At 10 a. m. the enemy's guns opened fire. General Barrett then ordered the 110th Mahrattas to reinforce the advanced guard, and he moved up the 16th Brigade on its right, retaining as reserves the 48th Pioneers and the 120th Infantry. Each of the two Brigade Commanders had now at his dis-

posal 3 battalions of infantry and a company of S. and M. The cavalry was covering the left flank of the whole force, and the two sloops were in the river away to our right with only the tops of their masts appearing above the date palms.

While these dispositions were being made a heavy down-pour lasting for half-an-hour came on, and the ground was converted into a quagmire ankle-deep. The desert here is not sandy, but is like what is known in India as *pat*. After rain it becomes extraordinarily slippery so that guns and horses can only move at a walk, and that with difficulty. Everything was obscured by the rain, and the enemy's guns ceased firing. Our troops, however, continued to advance steadily till 11-45 a. m. when the enemy simultaneously opened a very heavy gun, rifle and machine gun fire all along the line. After watching the engagement for some time General Barrett decided to abandon his original intention of turning the enemy's right, which extended some distance and was echeloned back into broken ground and palm groves, and to make a dash for the old mud fort which appeared to be the key of the position. He, therefore, ordered General Fry, with the 18th Brigade, to engage the enemy's right and centre with a frontal attack, and General Delamain to try and turn their left and capture the fort. It was at this stage that a large number of casualties occurred on our right, especially in the Dorset regiment which had been the first to come into action and had met with a tremendous cross fire from the enemy's trenches, the mud fort, and the date palms. The Turks were using smokeless powder, and owing to mirage were most difficult to locate. The sloops on the river had a military officer with them so as to assist co-operation but were unable to do more than put two or three shells into the enemy's position as the thick belt of date palms completely shut out the view. This turning of the enemy's left was a very tough job and was led by General Delamain in person, he being one of the first into the fort.

At 1-15 p. m. the whole of the enemy's line rose up out of their entrenchments. At this moment an extraordinary mirage came on. The Turkish entrenchments seemed to fade away, and in their place was a sheet of water with the enemy in the air above it. Their guns covered their retirement, and were then skilfully withdrawn under cover of long earthen embankments which concealed them from view. All this time our force was steadily advancing and keeping up a heavy fire on the enemy as they bolted out of the mirage into the date palms. Fortunately for them the state of the ground precluded rapid movement, especially on the part of the cavalry and artillery, or their losses would have been much heavier. As it was, only 2 mountain guns and about 50 prisoners, including three officers, fell into our hands. At 2-20 p. m. General Barrett ordered the pursuit to be stopped. The enemy were then retiring through the palm groves with banks and mud walls affording facilities for defence. We had to form an entrenched camp before night-fall, and to bring in a large number of wounded who were scattered over several square miles of country. Our casualties during the day amounted to about 500 killed and wounded, including 21 officers. The enemy's losses were more than 2,000. In one short section of his trenches we found 69 bodies in a row. That night the troops bivouacked on the bank of the river, and a very uncomfortable bivouac it was. The work of bringing in the wounded continued far into the night, and our ambulance party remained out all night in spite of the fact that the enemy were firing on our piquets. In addition to our own men a large number of wounded Turks and Arabs had to be cared for. This battle of Zain* which delivered Basrah into our hands, was referred to in a certain newspaper as "A smart little affair in the Gulf".

* Called by the Turks and Arabs. Kuti Zain. In certain official documents this action has been incorrectly referred to as the battle of Sahil.

Scarcely had the enemy's position been captured when one of those winds, well-known in the Gulf as a *Shamal*, sprang up and blew with some violence for several hours. Three large dhows which were lying alongside the transports laden with stores ready to be put ashore, were wrecked and 10 sepoys and 2 lascars were drowned. The wind and the strong tide and current made boating operations hazardous, and the result was that none of the wounded were able to be got off to the transports till the morning.

The next three days were spent in landing supplies for the troops and in reconnoitring the enemy's position at Balyaniyah, which was found to be at right-angles to the river, with four guns in position on the bank commanding the obstructions already referred to. General Barrett formed a plan of attack on Balyaniyah to be carried out on November 22nd by the combined naval and military forces; but on the 21st he received information that the enemy had vacated their position and fled northwards, and that the town of Basrah was in danger of being looted. On receipt of this news General Barrett immediately ordered a forced march on Basrah. The troops were to start at 8 p.m. that evening; the sloops were to go on up the river and try and get through the obstruction, and two battalions were hastily got on board shallow-draft steamers to follow them. The force started off at 8 o'clock that night across

Basrah occupied.

the desert, and by noon the next day had reached the outskirts of Basrah after a march that was extremely trying to the troops. Frequent delays were caused by the high banks of water channels which had to be levelled, and in some cases bridged, to allow of the passage of field guns. The two sloops, having got through the obstruction, reached Basrah at 9 p. m. on the 21st and the two battalions at 9 a. m. on the 22nd. On the 23rd the troops made a ceremonial march through the town to a selected spot on the 'Ashar Creek where the Foreign Consuls and the Basrah notables

were assembled to meet them. A proclamation was then read announcing that Basrah had passed for good and all out of the hands of the Turks; the Union Jack was hoisted on a prominent building, a salute was fired from the ships, the troops presented arms, and three cheers were given for His Majesty the King-Emperor. The six Germans who were living in the German Consulate celebrated our arrival by offering us bottled beer. They were, however, hurriedly placed on board one of the transports, and in the confusion the beer was left behind.

The South African war showed the enormous importance of good regimental officers, a fact which this war has brought out still more, and I think one of the reasons why the Turks have failed so signally during the last nine months, in spite of their good troops and material, is because their regimental officers are not up to tournament form. Their trenches were cleverly sited, very inconspicuous, and often stubbornly defended. Their gun positions were well chosen and the guns themselves well served. The field gun used by the Turks against Force "D" was a 15-pounder. It had a calibre of three-and-one-third inches, and was not a quick-firer. Although these guns were not modern they had been used very little, and most of their ammunition was brand new. I will show you a picture of a Turkish battery practising, a somewhat rare occasion. At the battle of Barjisiyah they had some 473 guns using segment shell.

The capture of Basrah by the British was regarded very seriously both in Constantinople and Berlin. It was part of the German dream that when the Baghdad railway was opened Basrah would develop into a great port which would immediately come under their sway and very soon under their flag also. It was the only possible terminus to the Gulf section of the railway and it would have to be regained at all costs.

Early in December a camp was formed at Magil, about 4 miles about Basrah, and the 17th Brigade under General Dobbie

was sent there.) Magil was a depot for material for the Baghdad-Basrah railway, and large quantities of railway stores were found there. At this depot the Germans had made a wharf, and had erected landing cranes and other structures. Just above Magil, at a place called Gurmat 'Ali, the new channel of the Euphrates enters the Shatt-al-'Arab. As soon as Basrah was occupied it became known that the Turks who had fled from the battle-field of Zain were re-assembling at Qurnah, a small town about 40 miles above Basrah where some of the waters of the Euphrates still find their way into the Tigris. Qurnah is the fabled site of the Garden of Eden. The two rivers here form a great contrast to one another, the Euphrates clear and feeble and the Tigris brown and sturdy. It is curious to note that the Karun and the Shatt-al-'Arab at their junction also form a contrast to one another, though in a different way. If you put your hand into the river opposite the British Consulate at Muhammarah you will find the water much colder than it is a few yards away in the Shatt-al-'Arab, and sometimes there is a difference of as much as 16 degrees Fahrenheit. The river from Qurnah to the sea is called the Shatt-al-'Arab, and has been aptly described as the spacious vestibule into Mesopotamia, the Tigris and Euphrates forming as it were two long corridors into the interior.

(On December 2nd, a column was sent up on two river steamers to deal with the Turks at Qurnah.)

Qurnah taken.

The column consisted of 2 battalions, some S. and M., and 2 field guns. The river steamers had two field guns mounted on them, and they did great execution. The flotilla accompanying the column consisted of the *Espiegle*, the *Odin*, the *Lawrence*, and two armed launches named the *Miner* and the *Shaitan*. (Early next morning the expedition reached a point about 4 miles below Qurnah, but on the opposite bank, where the troops were landed. The ships did not get very very far beyond here at first, but the paddle-steamers went ahead and used their

The Operations in Mesopotamia.

18-prs. with great effect. The armed launches went on still further and did splendid work. Colonel Frazer who was commanding the column at once made for the village of Mzaira'ah which was soon taken, the enemy being pursued to the banks of the river. As soon as the column got opposite to Qurnah a tremendous fusillade came whistling across the stream and it became evident that Qurnah could not be taken before nightfall. The column, therefore, withdrew to the mouth of the Suwaib Creek, about 3 miles to the south-east of Mzaira'ah, where they bivouacked and entrenched themselves. During the night the Turks were strongly reinforced, so the next day Lieutenant-Colonel Frazer sent word into Basrah and asked that he too might be reinforced. By December 6th, General Fry had arrived with 1½ battalions, a field battery, and a mountain battery. By this time the Turks had reoccupied Mzaira'ah, whence they made a half-hearted attempt at an advance against our camp. On the morning of the 7th the action of the 5th was fought over again, but on this occasion the armed launch *Shaitan* was disabled and her gallant commander, Lieut.-Commander Elkes, of the R.N. Reserve, was killed. Mzaira'ah was taken once more, the Turkish trenches were cleared, and the survivors withdrew across the river. General Fry's plan for taking Qurnah was to cross the Tigris some distance higher up and then to attack from the north and west. Accordingly early in the morning of the 8th, the 104th and 110th regiments were marched up the river with 2 mountain guns. Some sappers then swam across the stream carrying a line with them to which a steel hawser was attached. Considering that the Tigris is about 100 yards wide here, and that the enemy were in the vicinity of the landing-place, this was a fine performance. With the aid of a large *mahailah* which the Turks had kindly left for us, a flying-bridge was constructed, and the two battalions and the guns were got safely across. No attempt was made to take Qurnah that night, and so the force bivouacked and

entrenched itself, the main portion on the left bank and the remainder on the other.

About midnight on the 8th a steamer ablaze with lights was seen coming down stream. She carried three Turkish officers bearing a message of surrender from Subhi Bey, who was commanding the 38th Division, and had been acting Wali of Basrah. General Fry insisted on an unconditional surrender and so at 1 p. m. the next day the remnants of the Turkish garrison appeared before their trenches and laid down their arms. The Turkish officers then came forward and handed up their swords. General Fry returned Subhi Bey's sword in recognition of his having put up a good fight. The captives numbered 42 officers and 1,021 men. Many of the enemy had escaped during the night, and our troops were surprised at the large garrison remaining. Several more guns were taken. The Turkish casualties in and around Qurnah and Mzaira'ah were about 1,000 killed and wounded, ours being roughly a quarter of that total.

In January, a force of some 5,000 Turks and Arabs established themselves round the Rotah Creek, about 6 miles up the river above Mzaira'ah, and so on January 20th General Barrett made a reconnaissance in force against them from Mzaira'ah. We drove the enemy's outposts across the creek and shelled his camps and river boats, but we found out absolutely nothing about the enemy's strength or dispositions. Indirectly, however, the day's work had been of value because it proved that in this country of marsh and mirage, of innumerable creeks, and obstructed rivers, reconnaissances by land or water are practically useless, and that the only medium for this purpose is aircraft which we did not possess.

About this time we read in the home papers that the British were now in occupation of the richest part of the Mesopotamian Delta, and that we were being warmly welcomed by the Arabs. This was, of course, true, and if their ammunition had not been

The Rotah reconnaissance.

The Arabs "welcome" us.

The Operations in Mesopotamia.

so limited it would have been still warmer. As regards their attitude generally, I think they were glad to see the Turks being ejected, but they do not want us or anyone else to take their places. Turkish rule is despotism tempered with assassination, and the Arabs have had enough of it, but they are afraid that in the trail of this storm there will come law and order, and they do not like law and order; it cuts both ways. The Arab in fact does not wish to own allegiance to anyone, and he reserves to himself the exclusive right to fire on whom he pleases.

The enemy's forces were now disposed in three portions; his right on the Euphrates, his centre on the Tigris, and his left on the Karun.)

Turkish Dispositions. The rivers were rising rapidly, and the country round Qurnah was already under water, absolutely precluding any sort of military operations. General Barrett was of course aware that the Turkish movement against Ahwaz was merely a ruse to make him split up his forces, and he was strongly opposed to sending any troops up the Karun at all. He had, however, to choose between detaching a force to the Karun, and abandoning his ally the Shaikh of Muhammarah. The latter course meant allowing the Turks to raid Arabistan unmolested which would have had a fatal effect on the Shaikh of Muhammarah's already wavering tribesmen as well as on the Bakhtiari, and might indeed have set the whole country ablaze. Political considerations, therefore, seemed to him to be paramount, and troops were sent to Ahwaz. The hostile forces threatening that town were severely handled by General Robinson on March 3rd, though with some loss to his own side. The situation, however, showed little improvement, and before long it was decided to send more troops into Arabistan. Towards the end of April, General Gorringe's Division left Basrah for the Karun, the cavalry and transport animals marching overland, and the remainder going by river. On the 6th May, the division concentrated at Illah, on the Karkhah river, which is here 224 yards

broad and 24 feet deep. This crossing was a big business, but was very successfully accomplished. By this time most of the Turks had cleared, and General Gorringe was unable to do more than round up those of the enemy that remained and burn some villages. He was also able to inflict some punishment on those Arabs who were concerned in the treacherous attack on our cavalry on the 29th April by which three British Officers lost their lives. The division, less the bulk of the 12th Brigade which went on to 'Amarah, then returned to the Karun, and reached Basrah about the third week in June. The result of all this was that Arabistan was completely cleared of the Turks, and the Shaikh of Muhammarah's authority restored. More than this, the 142 miles of pipe-line between the oilfields at Masjid Suleiman and the refinery at 'Abbadan, about a mile of which had been completely destroyed by fire, were repaired, and ever since crude oil has been coming into 'Abbadan as usual. Some idea of the importance of the Anglo-Persian Oil Company's possessions to the Allies may be gained from the fact that the refinery at 'Abbadan is capable of dealing with from 6 to $7\frac{1}{2}$ million gallons of crude oil monthly, and that a great deal of this vast quantity is made into fuel for the Admiralty. The diameter of the pipe-line from the fields to Wais (some 15 miles north of Alhwaz) is 6", and from Wais to 'Abbadan 8 inches. The company employs about 3,150 hands at 'Abbadan.

(About the time of H. E. The Viceroy's visit to Basrah it became evident that the enemy were concentrating on the Euphrates.) Our cavalry from Sha'aibah were frequently in contact with their cavalry, and on March 3rd there was a sharp cavalry engagement. On March 16th a large body of Kurds and Arabs made a determined attack on Sha'aibah, but were brilliantly repulsed by General Delamain's cavalry and artillery, solidly assisted by the Dorset Regiment. Every day it became clearer that the enemy's main attack was to be delivered by

Storm-Centre shifts
to Nasiriyah.

his right wing, and that the Turks had every intention of carrying out their threat to retake Basrah. There is not the least doubt that but for their bad intelligence and their inertness the attempt might have been entirely successful. For three months after the capture of Basrah the largest available striking force with which we could have opposed them was 4 battalions, 4 squadrons, and 10 field guns, and it was sometimes less. Even up to the middle of March it never exceeded six battalions, and was often less. In the middle of February the enemy had twice as strong a force both in infantry and cavalry, and with equal gun power, at Nakhailah as we had at Basrah and Sha'aibah, and they were only two days' march from our trenches. They also had with them the Arab tribesmen under 'Ajaimi and other shaikhs, and another division was on its way down the Shatt-al-Hai, so that their reinforcements were closer to hand than ours were. I will show you a picture of two of the steamers which helped to bring this Turkish Division down the Shatt-al-Hai. The 'Turks were, of course, hoping that we should go out and attack them, and it was only because the Arab tribesmen and the *Mujahidin* grew tired of waiting and threatened to return to their homes unless the Turks attacked that Sulaiman 'Askari was ever got to advance against us at all. By that time we had nearly sixteen battalions in the Basrah area. Even then, with all our reinforcements, the enemy succeeded in completely cutting off Sha'aibah from Basrah, and the issue of the battle as we shall soon see, hung in the balance for several hours.

(The enemy's advanced position on the Euphrates line was at Nakhailah. That, they considered, was the nearest safe point to Basrah at which they could concentrate against us. We soon learned that they were bringing down supplies in *mahailahs* and collecting them there so that if necessary they could make a dash across the desert. General Barrett thereupon

The Nakhailah
Blockade.

had two 5" guns mounted on steel barges and sent up the new channel of the Euphrates from Gurmat 'Ali with orders to try and get above Nakhailah and so institute a blockade of that "port". This Blockade Flotilla did great damage and made a good bag of mahailahs, and no doubt considerably delayed the enemy's concentration.

Time went on and still the enemy made no attack. By the end of March the desert grass, which springs up after the winter rains, dies down, so that by not attacking before then he would be greatly increasing his difficulties, especially as horses can scarcely live in the desert after April has set in.

On the 11th April, the Sha'aibah garrison consisted of 8 battalions, 9 squadrons, 1 Battery, **Battle of Barjisiyah.** R. H. A., and 11 field guns, with 2 Companies of S. and M., the whole being under the command of Major-General Fry. The defensive perimeter within which this force was encamped extended over $3\frac{1}{2}$ miles. During the flood season, from February to June, water varying in depth from 1 to 4 feet lies between Basrah and the further shore. There were two ways of crossing this sheet of water; one by wading for about 6 miles and landing near Old Basrah whence troops and convoys had to march another 4 miles before reaching Sha'aibah; the other by using native boats called bellums. The latter approach crosses nearly 8 miles of water and is traversed by a creek too deep to wade.

On the 10th a party of the enemy's horsemen was seen near Sha'aibah, but they soon dispersed before our cavalry. On the 11th, the enemy's cavalry occupied Barjisiyah wood, and some 4,000 of his infantry moved into Shwebda. General Fry then reported that a serious engagement was imminent, whereupon General Melliss, with the 30th Brigade which had just arrived from Egypt, and a mountain battery, was ordered to move out the following morning. At 7-30 a. m. on April 12th, General Fry reported that he was being attacked in

The Operations in Mesopotamia.

force from the south, that he was confident of being able to hold his own, but that he was not able to prevent the enemy from occupying Old Basrah.* General Melliss' Brigade which had started off with the intention of wading to Old Basrah was held up by the enemy and had to return. He then tried to get there by bellum, but the Arab boatmen *en bloc* refused to assist. Sepoys, however, took their places, and at half-past eight that night General Melliss arrived at Sha'aibah, with most of the 24th Punjabis, and assumed command. The next days the enemy succeeded in cutting off Sha'aibah from Basrah, so that these were the only reinforcements that is was found possible to send.

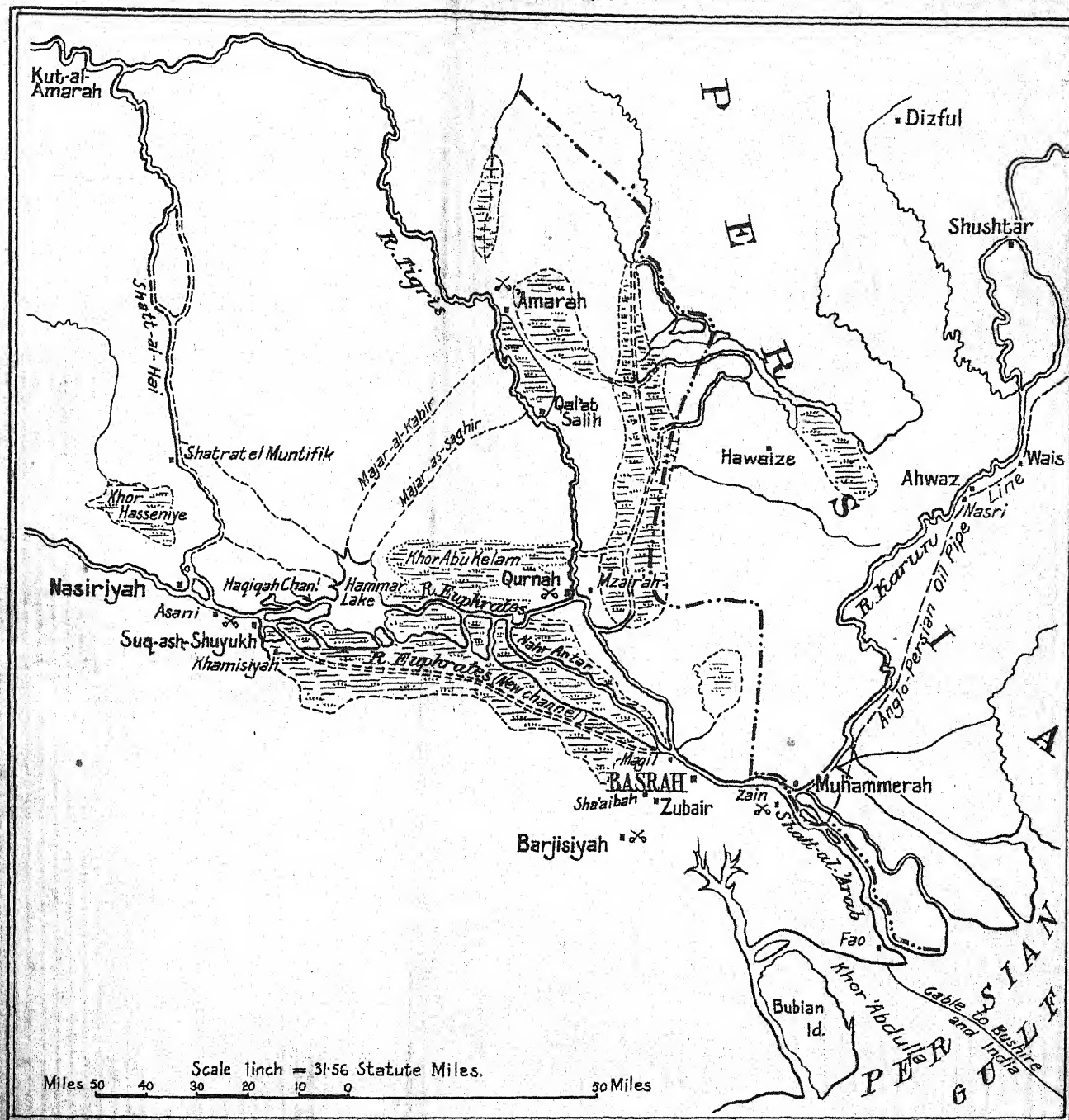
Altogether on the 12th the enemy made four separate attacks, all of which were repulsed. At 3-30 a. m. the following morning another attack was made. Some small parties of the enemy succeeded in getting close up to our entanglements, and one of them, imitating German methods of warfare, called out *in Urdu*, "Do not fire!".

The enemy were now surrounding the camp on all but the water side, and so on the 13th, early in the day, General Melliss decided to take the offensive. Our cavalry attempted to reconnoitre North Mound but were driven back by greatly superior forces,** whereupon our artillery concentrated on the mound and buildings. General Melliss then pushed out from the perimeter, along which the whole force was now distributed, three battalions, taken from the north face, under the command of General Delamain. The infantry advanced towards the north-west and with great dash captured North Mound where two guns were secured. The cavalry brigade on the right flank succeeded in getting home into the now broken enemy and accounting for about 150 of them. Our attacking line, which was subsequently increased, continued to

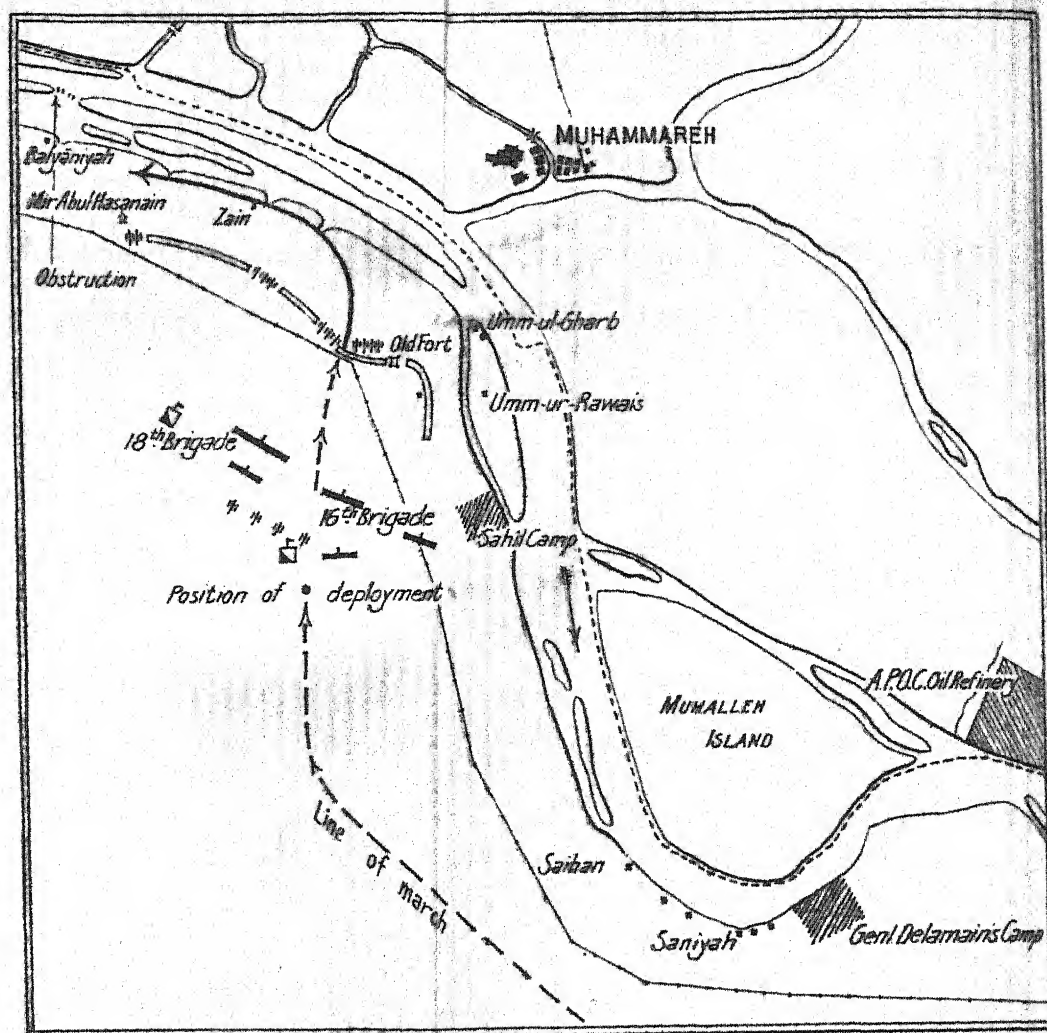
*The site of Old Basrah extends from the walls of Zubair for three miles along the road to modern Basrah.

** Major G. G. M. Wheeler, of the 7th Haryana Lancers, who was killed on North Mound, was awarded a Victoria Cross for his gallantry during the charge on this position.

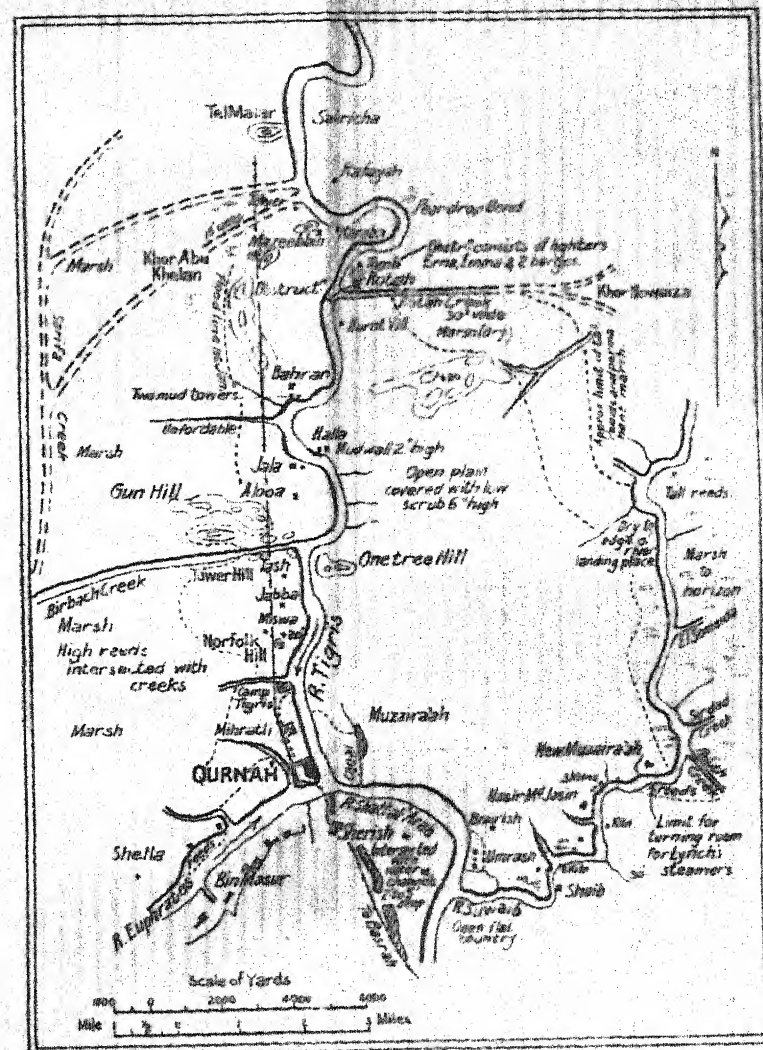
MAP 5.



MAP 1.

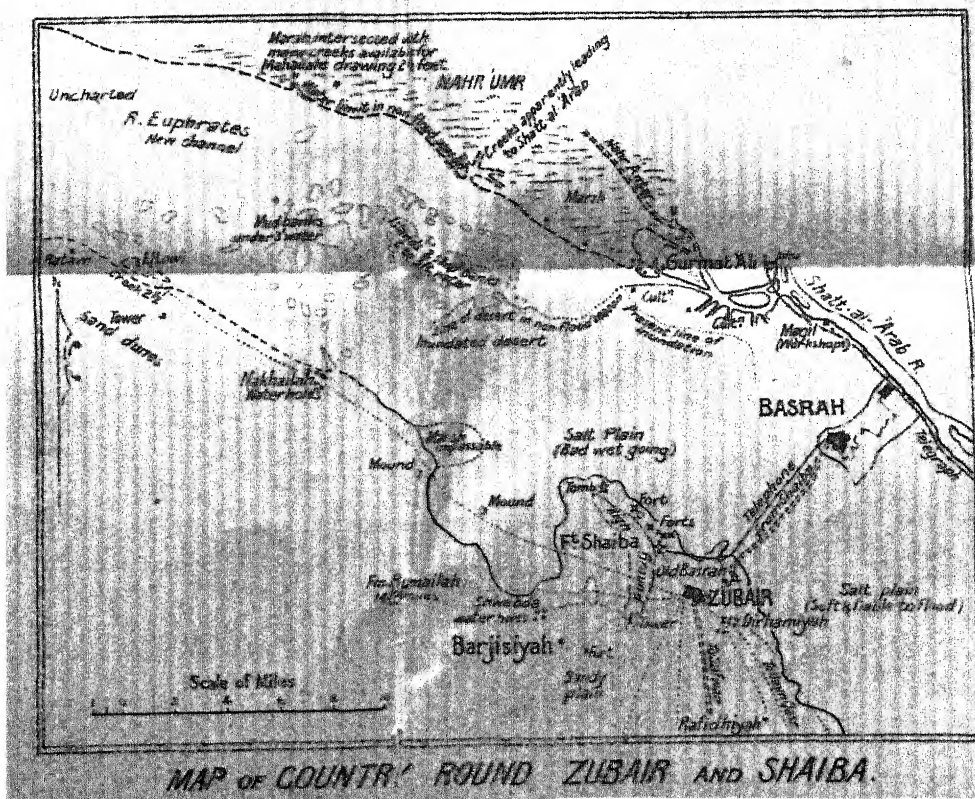


MAP 2.



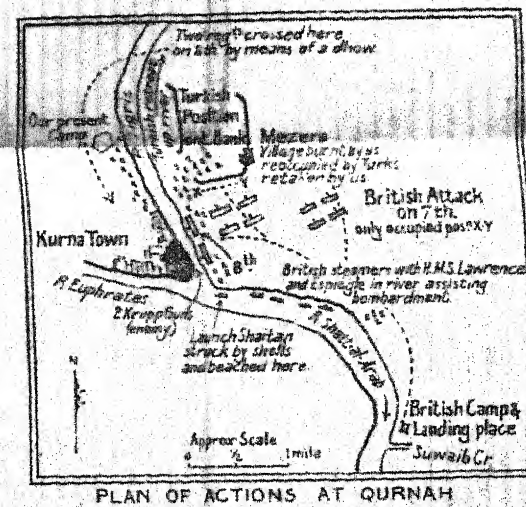
MAP OF QURNAH AND SURROUNDING COUNTRY.

MAP 3.



MAP OF COUNTRY ROUND ZUBAIR AND SHAIBA.

MAP 4.



PLAN OF ACTIONS AT QURNAH

advance and by dint of hard fighting cleared the whole of the vicinity of the camp, driving back the enemy as far as South Mound and inflicting heavy losses on them. At this stage General Melliss thought it prudent to discontinue the action in order to rest his overwrought troops who had been under arms continuously throughout the previous night. On the morning of the 14th it was ascertained that the enemy had withdrawn to Barjisiyah wood where they had established themselves very strongly. Considerable numbers of *Mujahidin* and Arab tribesmen, the very people in fact who had induced the Turks to make this attack, withdrew from Barjisiyah during the night of the 13th. On the early morning of the 14th, General Melliss, from his tower of observation on Kiln mound on the perimeter, noticed some of the enemy withdrawing from Barjisiyah woods towards Nakhailah. These eventually also proved to be *Mujahidin* and Arab tribesmen. In this indistinct movement General Melliss saw an opportunity of following up the blow which the enemy had been dealt the day before, and he immediately decided to resume the offensive without waiting for reinforcements. He accordingly ordered the whole force, less a camp garrison, to start off at 9 a. m. and attack the enemy wherever found. It soon became evident that the enemy occupied a front of nearly $3\frac{1}{2}$ miles, but owing to mirage and to our possessing no aircraft, it was quite impossible to make any reconnaissance of the enemy's position. So bad was the mirage that at one time desperate fighting was going on at close ranges without either side being able to see the other. The enemy's trenches were well sited and practically invisible from the front, while the smooth slope of the ground towards Barjisiyah Wood afforded them an ideal position for defence. By 1 p. m. very heavy firing had become general all along the line, but at 3 p. m. the fight was practically stationary, the enemy clinging to his trenches with desperate tenacity. At last day began to wane and the battle being still undecided, General Melliss ordered

The Operations in Mesopotamia.

a general advance. The splendid practice which our guns had been making throughout the day had already begun to tell. The Norfolks and the 120th Infantry, under a terrific fire, dashed at the enemy's trenches with the bayonet, whilst the 110th also under a heavy fire pressed forward on the right supported by "S" Battery and dismounted cavalry fire. Almost simultaneously the 16th Brigade consisting of the Dorsets, 24th Punjabis, 119th, and some of the 117th, made a general advance, and about 5 p. m. the enemy's forward trenches fell into our hands, though not before the defenders had been killed almost to a man, the few survivors being taken prisoners. The day was won.

(The return to camp, originally timed for 5-30 p. m., was not begun till 6 o'clock owing to the difficulty of collection and removal of wounded. Our withdrawal was entirely unmolested, and the troops reached Sha'aibah at 8-30 that night. Our casualties during this three days' battle amounted to 53 British Officers killed and wounded, and over 1,000 rank and file. The Dorset Regiment alone had 16 officers killed and wounded. The enemy's losses were estimated at 6,000.) I should like to quote the actual words of General Melliss who is himself the possessor of a Victoria Cross:—)

("It is impossible to conceive a more exposed tract of ground than the plain, devoid of cover, over which our infantry had to attack the Turkish trenches, cleverly concealed and sited. Our advance over the last 400 yards was down a glaxis-like slope. It was on the crest of this slope that so many of our losses occurred. Splendid dash combined with resolute courage alone carried our men across that bullet-swept glaxis. It was a sheer dogged soldiers' fight, and no words of mine can express my admiration of the conduct of those gallant regiments who won through".)

(During the night the enemy evacuated Barjisiyah and fled across the desert in wild confusion, scarcely halting till they

reached Khamisiyah, a distance of nearly 90 miles from the scene of their defeat. They had got most of their guns away on the evening of the 14th, and the remainder were removed during the night. Throughout their retreat they were harassed and robbed by their former allies the Arabs. Thus ended another "Smart little affair in the Gulf". One curious fact that became noticeable during this battle was that the enemy avoided surrendering to British regiments, and always gave themselves up where possible to the nearest Indian troops.

The Turks' right and left wings having now been crushed, it was decided to advance against their centre on the Tigris where they were reported to have 6 battalions and 10 guns, with about 600 *Mujahidin* and double that number of armed tribesmen. The operation was entrusted to Major-General Townshend, whose force consisted of the 16th and 17th Brigades, with the Norfolk Regiment, the 48th Pioneers, and 1 Field, 1 Mountain, 1 Howitzer, and 2 Heavy Batteries. The enemy's main position was at Bahran-Rotah-Maziblah-Sakricha, with advanced posts on Norfolk Hill, One Tree Hill, One Tower Hill, and Gun Hill. The whole country was under water as will be seen from this sketch. General Townshend's plan was to make a combined frontal and flank attack, the frontal to be the decisive one, and at the same time to make demonstrations to the west of the Tigris and up the Suwaib Creek. The plan was completely successful, the chief features of the attack being a stirring bayonet charge by the Oxford L.I., and the capture of One Tree Hill by the 22nd Punjabis. Early in the morning of June 1st our recently arrived aircraft discovered the enemy to be in full retreat, whereupon General Townshend left the 6th Division to concentrate at Bahran and pushed on up the river, past the sunken lighters at the mouth of the Rotah Creek (another abortive attempt, like that above Muhammarah, to block the river) to Ezra's Tomb which was reached at nightfall. On

The Operations in Mesopotamia.

June 2nd a start was made at 2 o'clock in the morning and by 4-20 a.m. the *Espiegle* was shelling the Turkish Gunboat *Marmaris* which was soon holed in three places and set on fire. The river here began to shallow, and at a point about 7 miles above Ezra's Tomb the sloops found they could get no further. Qal'at Salih was reached at 3-20 that afternoon, after some cavalry and a company of infantry had been dispersed with a few shells. White flags were now to be seen everywhere along the banks. At 1-30 p.m. on June 3rd, the King's Birthday, the town of 'Amarah surrendered to General Townshend who at the time had actually with him only 22 men. Notwithstanding this, 700 Turkish regular troops, including one of the redoubtable "Pompier"* Battalions of Constantinople Turks, laid down their arms in the barracks at 'Amarah, after which they were put on board lighters to be sent down the river. On June 4th the Norfolk Regiment arrived, and none too soon, as by this time the Arabs had discovered how few men General Townshend had with him and had started a fusillade in the town. The surprising features of these operations are the rapidity and bluff with which they were conducted. General Townshend had fought a very successful action and had covered a distance of about 90 miles, and all between the 31st May and 1-30 p.m. on the 3rd of June.

On June 18th, the 12th Brigade (less the 44th Merwaras) under Lieutenant-Colonel H. H. Dunlop, consisting of the Royal West Kent Regiment, the 67th and 90th Punjabis, and 82nd Battery, R. F. A., and the 7th Lancers, reached 'Amarah, having marched across from the Karun River, *via* Bisaitin, Umm Chir, Mazlag, and Halfiyah, through heat that must have been well-nigh insupportable.

It was now decided to send a force up the Euphrates with the object of occupying Nasiriyah, a town of great strategical importance at the

Advance up the
Euphrates.

* Or Fire Brigade; these battalions had a strength of about 700 men each. They were armed and trained as infantry, and were usually quartered in the vicinity of Constantinople. Those at Barjislyah fought most gallantly.

junction of the Shatt-al-Hai and the Euphrates. The Shatt-al-Hai, or Shatt-al-Gharaf as it is often called, is a small river connecting the Tigris and Euphrates, and from March to June is navigable for large steamers. The advance began at the end of June when a force under Major-General Gorringe left Qurnah and moved up the unsurveyed waters of the Euphrates. The Hakikah Channel, through which that river enters the Hammar Lake, was found to have been blocked by a dam which the enemy had laboriously thrown across it. This dam had to be demolished, and the opening of the channel caused the formation of a rapid up which the steamers and barges had to be hauled by parties of soldiers on the banks. The rapids having been passed, the enemy were found in an advanced position near Suq-ash-Shuyukh. After severe fighting they were dislodged and on July 5th Suq-ash-Shuyukh surrendered. From here they retired to a very strong, entrenched position higher up the river and astride of it, with their flanks resting on marshes, and it was found necessary to bring up the 12th Brigade, and later on the 18th Brigade also. The British force, while waiting for its reinforcements, took up a position north of Asani and close to the Turkish trenches, and were attacked every night though without result or serious casualties. On the 14th, General Gorringe made an attack which failed owing to our troops being surrounded by Arabs just as they were on the point of capturing a strong work on the right of the Turkish position, after a most gallant attack through the marshes by the 24th Punjabis. It was then decided to postpone further operations until the arrival of the 18th Brigade, under Lt.-Col. Frazer. Finally on July 24th, after a fierce artillery bombardment, the 12th Brigade, under Lt.-Col. H. Dunlop, successfully assaulted the Turkish trenches on the left bank. The 30th Brigade, under Major-General Melliss, then carried his advanced trenches on the other bank, having had to force the passage of a canal in order to do so. Not only had this canal to be bridged, but the bridging materials had to be brought up in an armed barge which had to fight

The Operations in Mesopotamia

its way to the mouth of the canal. Though the Turks had suffered heavily from our artillery fire, they made a most determined resistance, and our men had to face a very heavy fire before they got in with the bayonet. Not without much hand-to-hand fighting was the whole position captured, but by noon this was successfully accomplished. A second strong position had been prepared about two miles further on, but by this time the enemy's resistance had been broken, and before sunset the bulk of them had retired northward into the marshes with a loss of all their guns, 500 killed, and several hundred prisoners. On the following day, that is to say July 25th, Nasiriyah was occupied.

(In describing the great endurance displayed by this force, Sir John Nixon says that they were fighting night and day with little intermission from the 5th to the 25th July. A shade temperature of 113° was often experienced, and that too in an atmosphere of the heaviest and closest humidity. The exhaustion and hardships of trench warfare, where guns, ammunition, and stores, had to be moved about without the help of animals, are in such circumstances difficult to describe. Twenty days of such work, culminating in an attack of a series of entrenched positions, form a test of endurance which could scarcely be over-estimated.)

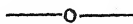
In the limited time at my disposal I have only been able to touch upon the main incidents of the war in Mesopotamia, and there have been several minor engagements to which I should like to have referred. I will close my lecture with a few pictures of Baghdad and Kerbela, and of one or two of those sites which go to make this country a Holy Land to all Muhammadans.

THE CADET COLLEGE, QUETTA,

By

BRIGADIER GENERAL H.H. AUSTIN C.M.G., D.S.O.,

THE COMMANDANT.



The present world war has been instrumental in upsetting many preconceived notions, and bringing rapidly into being ventures that would scarcely have been tolerated as profitable subjects for discussion in days of self-satisfaction and peace. It is probably not far from the truth to assert that, two or three years ago, there were not many who anticipated that the next great war would lead to so tremendous a wastage in British Officers of the Indian Army that the ordinary sources of supply would be quite inadequate to meet the demand: and that India herself would have to put her hand to the plough, within her own borders, by undertaking the speedy education and training of young gentlemen, in order to provide officers to make partially good the losses incurred in various theatres, where India might be expected to respond to the calls of the Empire.

But the autumn months of 1914 proved that, this question of the provision of British Officers for Indian units, was one of many serious problems by which the Government of India would shortly be faced, under the conditions of modern war on a huge scale. The situation was promptly taken in hand; and many patriotic civilians, resident in India, availed themselves of the offer of temporary commissions in the Indian Army Reserve of Officers; and thus, in part, tided over the immediate call for more British Officers. At the same time provision had to be made for the future, since the hundreds of zealous gentlemen, who had thus come forward, were still insufficient to meet the likely requirements of a protracted struggle.

The Cadet College, Quetta.

The Royal Military College at Sandhurst was turning out young officers for the Infantry and Cavalry, after a short course, in large numbers ; but these were urgently required, almost in their entirety, for British units at the front and for the new armies, and few could be spared for the wants of India. It is doubtful, moreover, if officers so educated would be of much use, for some time to come, with Indian units owing to their ignorance of the language and idiosyncrasies of the troops they would immediately be called upon to command.

And so the Secretary of State for India and the Government of India, in consultation, decided upon the establishment of Cadet Colleges in India. This question first came into serious consideration towards the closing months of 1914; but certain preliminaries had to be arranged between the War and India Offices before the Secretary of State was in a position to inform the Government of India, in February 1915, that he would be able to send out a batch of 100 Cadets in April to be trained at Quetta for the Indian Army.

Here, it was agreed, young gentlemen of English parentage, between the ages of 17 and 23, were to receive a six months' strenuous grounding in the rudiments of their military profession, and a practical instruction in the Urdu language at the same time. At the end of their six months course the Cadets, who made a satisfactory use of the opportunities placed before them, were to be gazetted as second-lieutenants in the Indian Army, direct from the College, without any further examination.

The Entrance Examinations for the Indian Cadet Colleges are, during the period of the war, conducted by the Civil Service Commissioners in the United Kingdom, and are identical with those for Woolwich and Sandhurst. The candidates apparently signify their wishes, beforehand, as to whether Woolwich, Sandhurst or an Indian College is their choice, in order of preference : and should they pass suffi-

ciently high in the competitive examination they are admitted to the institution selected by them—failing that to the second, or even third name on their list of choices. A candidate, for example, may place after his name, say, the following—“W. Q. S.”—meaning that Woolwich is his first choice : following that Quetta : and finally Sandhurst, should he not obtain a place on the Quetta list for admission to the Indian Army.

It was considered that the Staff College at Quetta, which was closed down shortly after the declaration of war, could conveniently be utilised for the training of 100 Gentlemen Cadets; situated as the College is at an altitude of close on 5,000 feet above sea-level, it was thought that the climate would be in every way suitable for instructional purposes throughout the year—in spite of the youthful age at which many of the Cadets might be expected to join the institution.

Once the establishment of a Cadet College at Quetta had been definitely decided upon, all details remained to be carefully worked out, in order to place the institution on a similar footing, so far as eastern conditions permitted, to the Military Colleges in England. It is clear, however, that not a few modifications were necessitated by divers climatic, and other, considerations affecting the problem; since the housing and servant questions at Quetta, to mention two points alone, are very different from anything that obtain at Woolwich and Sandhurst.

Within the compass of a magazine article it is only possible for the writer to touch on the larger aspects of the founding of the Cadet College at Quetta; and to attempt a general survey of the genesis of the institution, with a brief description of the College, the course of instruction, and the Cadets' lives whilst number training.

Without entering into detail, it may be stated that the Staff of Officers considered suitable for the Cadet College consists of a Commandant, an Assistant Commandant, three

The Cadet College, Quetta.

General Staff Officers, 2nd Grade, an Adjutant and Quartermaster, a Chief Instructor in Urdu, a Company Commander of the Cadet Company, two Company Officers, a Medical Officer and Riding Master. The above all reside within the College precincts, whilst the spiritual welfare of the Cadets is attended to by the various chaplains in Quetta: and the Divisional Veterinary Officer is responsible for the veterinary care of the 50 Government horses utilised for the instruction of Cadets in riding.

The Subordinate Instructional Staff of the College consists of a Company Sergeant Major, 4 Sergeant Instructors, 2 Staff Sergeants for Physical Training, 4 junior Non-Commissioned Officers. Drill Instructors, 3 Rough Riders, 5 Regimental Munshis, and 3 Sappers and Miners with the Field Park.

In addition to the above a large Clerical, Quartermaster, Printing, Drawing, Litho, Mess, and Menial Staff, has to be entertained for the proper working of the College. The total number for whom pay bills have to be prepared amounts to close on 350, including Officers and Cadets

For the accommodation of the Staff and 100 Cadets the existing Staff College buildings at Quetta were found suitable with slight alterations and modifications. The Mess and ante Room in the main College block being, however, inadequate for the seating of 100 Cadets and those officers dining at Mess, Staff College House (the usual residence of the Commandant of the Staff College) was requisitioned and equipped as a subsidiary mess to accommodate 30 Cadets and officers. With certain exceptions the officers of the Staff are accommodated in the bungalows built for the Directing Staff of the Staff College. One of these bungalows has been temporarily appropriated for a Cadet Hospital of 8 to 10 beds; and another has been set aside as a Non-Commissioned Officer's Mess, which contains some 14 dining members.

The Cadets are distributed in various bungalows, four

being apportioned to each married Staff College student's quarter, and 24 in single students' quarters—the remaining quarters being allotted to the Subordinate Instructional and other Staffs. Cadets are provided by Government with the requisite furniture for a bed-sitting room and bath room each, together with bedding and towels; and the Non-Commanding Officer's quarters and Mess have also been equipped by Government on a suitable scale. All quarters have electric light, and cold water laid on in bath rooms.

For indoor work the two Staff College lecture halls are fitted up with the additional chairs and tables necessary to admit of 50 Cadets attending lectures simultaneously in each; whilst on Sundays Divine Service is held in the larger of the two halls of study—in which, with chairs substituted for tables, there is accommodation for over 120 worshippers.

The requirements of Cadets being trained to become officers were, naturally, in many respects wanting at an establishment designed for the higher training of officers; and, in order to convert the Staff College to its present use, it was necessary to provide means whereby Cadets could receive instruction in drill, musketry, physical training, military engineering, military sketching, riding, signalling and so on. Consequently, the additions to the Staff College property comprised the clearing of a large parade ground in close proximity to the College; the construction of an armoury for the safe custody of 120 rifles and bayonets, two machine guns, and the storage of ammunition, etc.: and the conversion of a neighbouring building into a guard room for the protection of the armoury. In addition, the construction of a four-target range, up to 600 yards, backed by Gatacre Hill, and of a miniature range, near the College, had to be undertaken.

For instruction in physical training a plot of ground some 60 yards square, was prepared and levelled in the compound of Staff College House; and on it are set up wall bars, double beams, horizontal and parallal bars, vault-

The Cadet College, Quetta.

ing horses, and so on : whilst near by is constructed a stiff obstacle course about 500 yards in length—ditches, brick walls, fences, etc., constituting the obstacles to be surmounted by the Cadets.

For instruction in Military Engineering and Field Defences a small R. E. Park has been equipped with the more essential instruments, tools, timber and bridging materials, explosives, barbed wire, etc.

Considerable additions had to be made to the supply of Military Sketching Instruments borne on the charge of the Staff College, in order to admit of 50 Cadets being instructed simultaneously in field sketching and map reading work in the vicinity of the College.

Instruction in equitation is carried out on the Staff College riding track, situated some $1\frac{1}{4}$ miles East of the College. Here four open maneges have been prepared, two of which ($180' \times 75'$) are enclosed between mud walls some 5 feet in height, in order to keep beginners and their mounts within the limits of the ride. An excellent jump track, some 600 yards in length, has also been provided close alongside the maneges. Fifty Government horses have been placed at the disposal of the College from the 28th Light Cavalry, and supplied with the necessary saddlery and stable requisites. The horses are stabled at the College, and exercised, groomed, watered and fed by syces enlisted for the College use.

Elementary instruction in signalling has also been arranged for, and the necessary equipment provided by the Ordnance Department for the use of the Cadets.

But as all work and no play would possibly make the Gentlemen Cadets weary lads at Quetta, their means of recreation have received due consideration ; and in addition to the four tennis courts, sticky court and two squash racquet courts previously existing at the Staff College, two more tennis courts have been constructed ; and, through the courtesy of the General Officer Commanding the 4th

(Quetta) Division, a hockey ground of one of the local battalions (on field service) has been placed at the disposal of the College; whilst the members of the Quetta Club have been pleased to grant the use of the Station Cricket Ground to the College on Wednesday afternoons—the Cadets' half-holiday—free of charge.

Before entering on a description of the curriculum of work, and the College life generally, it will perhaps be as well to touch here on the financial and other arrangements made by the Government of India with regard to the Cadets. In the first place, it was decided that all the usual fees at Sandhurst should be remitted, and that whilst undergoing training, Cadets should receive from Government an allowance of Rs. 3-6-0 per diem. This sum is intended to cover the cost of their mess bills and other small incidental expenses. In addition, the parent or guardian of each Cadet is required to pay in the sum of Rs. 45-0-0 per mensem, in the nature of pocket money, on his behalf. The Commandant of the College every month draws from the Controller of Military Accounts these two sums, which are placed to the credit of each Cadet. On the debit side is the Cadet's Mess bill, his washing, games subscriptions, and other charges incurred during the month. Such balance as remains to the credit of the Cadet at the end of each month, is handed over to him in cash early the following month.

Since the cost of messing is approximately Rs. 2-12-0 per diem and Cadets are not permitted to drink wine, and are limited to mineral waters, and two glasses of beer at lunch and dinner, a careful Cadet can ensure that each month he will receive the major portion of his pocket money for his personal requirements in Quetta. In order to guard against any over-drawing, however, of their monthly accounts, Cadets are restricted to an expenditure of Rs. 8 per week on 'extras' in the Mess, *i. e.*, beer, mineral waters, smokes and so on.

Bills run up by Cadets with tradesmen in Quetta and elsewhere are not admitted into the College: but Cadets are expected to pay these at least once a month. This, it is considered, is the surest means of teaching them the value of money in India, and of Cadets learning how best to cut their coats according to their cloth—before they leave the College to join their Indian units.

In addition to the pocket-money allowance referred to above, parents or guardians are required to deposit a further sum of £35 to cover the cost of uniform, professional books, etc., provided to Cadets whilst undergoing training.

Cadets are expected to bring out with them from England certain articles of uniform, but the larger portion, consisting chiefly of khaki and white clothing, khaki cord riding breeches, putties, and so on, are made up for them, from material obtained from the Army Clothing Department, by a staff of dirzies entertained at the College for the purpose.

Owing to some confusion that arose with regard to this "Contingent Account", as it is called, of the first batch of Cadets, it has been suggested that, in future, the Commandant of the Cadet College in India should have placed at his disposal (with the Controller of Military Accounts) £15 for the provision of the necessary books and uniform supplied to each Cadet in India; and also his pocket-money allowance of £18 being at the rate of £3 per mensem for six months. Should parents desire to grant their sons a larger pocket-money allowance than £3 per mensem they are at liberty to do so; but any such additions are regarded as a personal matter between parent and son, and find no place in the College accounts.

Any balance of the Contingent Account that may remain to the credit of a Cadet at the close of his six months' course will be added to his £50 outfit allowance, on obtaining his commission: and any overdraw of his Contingent Allowance by a Cadet will be deducted from this same sum. In this manner the intricacies of the accounts of the Cadets

are reduced to a minimum of labour and supervision.

Such in brief are the financial arrangements made with regard to the Cadets ; and, in dealing with their personal requirements, Government agreed that servants should be provided to attend to the wants of Cadets in quarters and at Mess, and authorised the enlistment of a suitable staff of bearer-khitmatgars and sweepers for this purpose. The large majority of these men, and also the syces for the government horses, were enlisted at Agra and Delhi, and regular terms of agreement were drawn up with them.

Piped water, electric light, and fuel, are supplied to Cadets by Government free, the latter item including a personal allowance of Rs. 2 per mensem per Cadet for payment of hot water for baths, prepared by their servants in quarters.

At the Quetta Staff College, messing arrangements only existed for some 60 officers of the Directing Staff and students, and it became necessary, therefore, to increase largely the stock of linen, glass, crockery, cooking utensils, and so on, to meet the requirements of about 110 Officers and Cadets. A grant was made by Government in order to enable the Cadet College to obtain essentials : and the subsidiary mess was completely stocked with new purchases. Under present arrangements 72 Cadets dine in the Main Mess, and 28 in the subsidiary one in Staff College House.

Government further sanctioned a requisite Mess establishment of Mess Steward, assistants, clerks, khansamah, cooks, mess servants, and menials at a total cost of about Rs. 1,300 per mensem for the two messes. Other allowances include monthly grants for the provision of papers and magazines in the Library and ante rooms, insurance charges, and so on.

To turn to the working of the College. The chain of command and chief duties of the Staff are shewn on the attached table. The Commandant deals, with all matters regarding the administration and organization of the College, and, under the orders of the Chief of the General Staff, exercises control over the training of the Cadets. He is

assisted by an Adjutant and Quartermaster as personal staff officer for all administrative details : and an Assistant Commandant who is chiefly concerned with the co-ordination of all work connected with the education of the Cadets in military subjects and exercises ; and such disciplinary matters as are beyond the powers of punishment of the Company Commander, but not of so serious a nature as to necessitate bringing the offender before the Commandant.

The Company Commander and the two Company Officers are chiefly concerned with the general well-being of the Cadets, and their instruction in drill, musketry, physical training, minor tactics, signalling and so on—assisted by the Non-Commissioned Officer Staff.

The instruction of Cadets in special subjects, as advanced musketry, military history, military engineering, military sketching, military law, organization and administration, Urdu, and riding, is carried out by the General Staff Officers, 2nd Grade, and other officers detailed for the purpose.

The organization of the Cadet Company is similar to that of a Company of Infantry, except that the Company of 100 Cadets is only divided into 2 platoons, A. and B. Each platoon is sub-divided into 4 sections, which are numbered consecutively A 1 to B 8. The company is commanded by a Company Commander assisted by a Company Officer in charge of each platoon. For purposes of instruction 2 Sergeant Instructors and 2 junior Non-Commissioned Officers are posted to each platoon. As the Cadets progressed in their drill and studies, selections were made from their number to the appointments of corporals and lance-corporals in the sections ; and, later, two platoon sergeants from the best Cadet Non-Commissioned Officers were appointed.

In the matter of maintaining discipline, the Commandant has power to sentence a Cadet to lose a place or places in the list for commissions : and in more serious cases Cadets are liable to removal or expulsion, on the report of the Commandant. A Cadet is also liable to be removed (1) for

moral or physical unfitness : (2) for unsatisfactory progress in his studies, or physical exercises : or (3) if reported by the Commandant as not likely to become an efficient officer.

Other officers have certain minor powers of punishment delegated to them—the Company Commander, for example, is empowered to award 7 days' restriction, and 14 days' stoppage of leave, and extra drills : and the Assistant Commandant can award 14 days' restriction and 21 days' stoppage of leave. By "Stoppage of Leave" is meant Sunday and Wednesday afternoon leave to friends in Quetta. Cadets so punished are not allowed to leave the College area, and have to answer their names at roll calls as laid down in the College Time-table.

A Cadet under "restriction" is liable to the same penalties as entailed by "stoppage of leave", and, in addition, has to report himself at all extra parades. Nor is he allowed to attend any entertainment in the College or play in any game or join in sports. He wears uniform at all times except when at physical training.

A Cadet may also be placed under arrest for more serious offences : and if under close arrest is not permitted to leave his room. If in open arrest he attends all studies lectures, outdoor work, rides, parades and other duties, including restriction and stoppage of leave roll calls (if his name is on either of those lists) ; but returns to his room immediately the study or duty is over.

Cadets may be granted leave on Sundays, in Quetta, from Reveille to 11-30 p.m. : and on Wednesdays from 12-30 p.m. until 8 p.m.

The sick attend hospital daily at 9-30 a.m. Cadets excused parades, riding, etc., are not permitted to quit the College area or take part in any outdoor games. The hospital is provided with a suitable staff, which includes a Nursing Sister, to attend to the wants of those detained there.

Khaki uniform is worn by Cadets at all times, except when on leave, or when otherwise exempted by the Com-

mandant, and when playing games, or taking part in physical training. At Quetta Cadets have been provided with blue turn down collar frocks, and overalls and Wellingtons for Mess and Church parade : but it has been decided that future batches should wear service uniform alone, on all occasions, as at Sandhurst under war conditions.

Such are the chief personal matters concerning the Cadets ; and a glance now at the syllabus of instruction will give an impression of the subjects that are taught the Cadets whilst under training at Quetta. The aim of the College Staff has been to make this training thoroughly practical and to provide Cadets with a solid foundation of military knowledge. On this, it is hoped, Cadets will build, hereafter, when they have received their commissions, and that they will then erect for themselves military educational edifices on sound lines.

Drill and Minor Tactics.—The Cadets' instruction in these subjects embraces practically the whole of Infantry Training, 1914, Cavalry Training, 1915, to a lesser extent, and certain portions of the Field Service Regulations to which particular attention is being paid at Sandhurst. As Cadets progress in their studies they are frequently exercised in outdoor tactical schemes, are taken into camp ; and, it is proposed, if possible, they should attend manoeuvres as a company of a local British infantry battalion.

Physical Training.—The course of physical training follows closely that laid down in the official manual. It is conducted by two physical training experts from the Central School at Ambala, and is arranged for almost daily throughout the whole six months the Cadets are under training.

Musketry.—Besides lectures the course embraces aiming instruction ; firing instruction ; care of arms ; standard tests ; visual training : judging distance : short range work : range practices (selections from Tables A and B) ; fire control training : individual field practices : collective field practices : revolver practice : and tactical employment of machine guns etc.

Map Reading, Military Sketching and Reconnaissance.—Instruction in these subjects includes explanation of scales and use of instruments : conventional signs : copying maps : explanation of the use of Prismatic Compass and protractor : prismatic compass sketches : enlarging maps : methods of representing hill features : contouring, and form lines : map reading : plane table work : cavalry sketching board : the finding of true North : reconnaissance work : eye sketching : panorama sketching : night marching by aid of stars, and so on.

In Military Engineering and Field Defences.—Cadets are instructed in the principles of Field Fortification, penetration of present day weapons of precision ; and such subjects as the siting and construction of fire and communication trenches ; revetting, provision of overhead cover ; loopholes, bombproof shelters, drainage, etc. : construction of machine gun emplacements, sangars and obstacles : strengthening of outpost positions : construction of wood defences, redoubts, block houses, etc. : high command trenches : Indian frontier camp defences : field kitchens, latrines, and incinerators : water supply, hutting expedients : trench work at night ; and fortification in connection with tactical schemes. Practical work is also carried out in connection with bridging, and demolitions—with and without explosives.

The course of *Military History* includes lectures and written tasks on the elements of strategy : the Waterloo Campaign : the campaign in Tirah—for instruction in Mountain Warfare : and the present World War.

Organization Administration and Military Law include a general review of the Indian Empire—its frontiers, mountains, rivers, deserts, railways, arsenals, factories, defended ports, etc. The religious and fighting races of India, their caste prejudices, and treatment of Indian officers and soldiers generally, are also dealt with : as well as organization of a battalion of infantry, regiment of cavalry, and the Royal Artillery. The subjects of recruits, Indian Army Reserve, in-

terior economy of units, clothing, equipment, pay in peace and war, regimental accounts, and so on, also find a place under this head. The military organization of India, and the organizations generally of our forces, those of our allies and those of our enemies are likewise explained: and short accounts are given of the civil administration of India and the status of Native States, and Imperial Service Troops.

Practical instruction is further given in guard duties, entraining and detraining, packing and loading camels and mules, tent pitching, etc.: whilst duties on boardship are explained, and a series of lectures is given to the Cadets.

Sanitation.—A course of lectures is given to the Cadets by the Medical Officer on the prevention of disease in the field, preservation of health in India, hygiene, first aid, etc.: and Cadets receive some instruction in the preparation of food, and practical lessons in cooking in the field.

Riding and Stable Management.—During some four months out of the six Cadets receive instruction in equitation every other day by the Riding Master and his staff of Rough Riders; whilst the Veterinary Officer deals in a few lectures with stable and horse management in India, and first aid dressings, to injured horses.

Hindustani.—Cadets receive daily instruction in Urdu in the form of lectures to large classes of 50, individual instruction in small parties of two and three with Munshis every other day in addition. It is hoped, therefore, that by the end of six months they will have acquired a sound practical colloquial knowledge of the language, and have attained to a standard not lower than that necessary to pass the L.S. test. They should then prove useful officers immediately on joining their Indian units.

In view of the fact that the Cadets at Quetta have to endeavour to learn in six months that which, under normal conditions, is acquired at Sandhurst in eighteen, followed by an attachment to a British regiment for a year, it is needless to say that the course at Quetta has, of neces-

sity, to be of a strenuous nature. The normal hours set aside for study are best shewn in the form of the Cadets' Time Table during the summer months, which is reproduced for information.

Briefly stated the Cadets have usually 8 hours' work daily, (*i.e.*, 7—8 a.m.; 9-30 a.m.—1-30 p.m.; 2-30 p.m.—4-30 p.m. and 7 p.m.—8 p.m.) with the exception of Wednesday when all work ceases for the day at 12-30 p.m.: and Sunday, which is a whole holiday. The hours between 4-30 p.m. and 7. p.m. on whole days are set aside for recreation, the tennis courts generally being fully utilised between those hours, as well as the sticky and squash courts: whilst cricket and hockey are played on Wednesdays, and the latter game generally on Saturdays as well. Every second day each Cadet also has half-an-hour's individual instruction in Urdu with a Munshi between the hours of 4-30 and 7 p.m.

A full week's work amounts approximately to 44 hours, *i.e.*, 20 hours followed by a half holiday, and 24 hours followed by a whole holiday; but during the hottest part of July and August the afternoon work was reduced, for it was found that with not a few of the Cadets, eyelids became very heavy after lunch in the soporific air of Quetta's summer.

The size of the lecture halls, physical training ground, riding schools, and other means at the disposal of the College Staff do not usually admit of the whole company being instructed, simultaneously, in the same subjects. Separate programmes of work, therefore, are prepared beforehand for A and B Platoons: but the week's work is so dovetailed in, day by day, that the two platoons are trained identically on the same lines, and are abreast of each other at the end of every week. This, of course, means that most lectures and demonstrations have to be given twice—to each platoon in turn. A copy of a typical programme, a few weeks after the Cadets joined Quetta, and before they com-

menced their Musketry and Riding courses, is attached as an example.

Chota haziri is served daily in the two messes between 6-30 and 7 a. m. and all Cadets are expected to take tea or coffee, and biscuits, etc., prior to their physical training, drill, or whatever it may be, before the breakfast hour. Lectures and drills do not, as a rule, exceed three-quarters of an hour at one time: and Cadets are at liberty to call for cake, biscuits and mineral waters in the ante rooms during the quarter of an hour breaks between morning lectures, usually at the one between 11-15 and 11-30 p. m.

As regards the breakfasts, luncheons and dinners served in the messes, the Cadets are fed on a scale not inferior to that obtaining in the generality of Indian regimental messes—special attention in the hot weather being given to a plentiful supply of non-heating dishes, such as porridge, fish, eggs, fruit and vegetables at breakfast, and similarly at other meals. Afternoon tea is provided the Cadets in the mess rooms at any time between 4-30 p. m. and 5-30 p. m.

From what has been written it will probably be agreed that the Cadets at Quetta are well housed, suitably clothed and equipped, well fed, and hard worked; but are given time for, and are keen on, outdoor sports and games; whilst, it may be added, the sound sleep earned by a strenuous and healthy day's mental and physical activity rarely fails them, during the hours of darkness.

In conclusion, a few words about the social life of the Cadets may not be out of place. The writer gratefully acknowledges the kindly interest taken by the residents of Quetta in the Cadets, who are so far removed from home influences. From the Residency and Flagstaff House downwards, much hospitality has been extended to them outside the College circle; whilst the College endeavoured to acknowledge its indebtedness to Quetta friends by giving a Garden Party within the College precincts in August. Before the

first batch of Cadets leave Quetta to take up their appointments in the Indian Army in November, it is proposed to give another entertainment in the shape of sports, horsemanship, etc., by the Cadets—with some events open to the station—on the College Riding Track. This, it is hoped, will be attended by troops of the garrison, as well as by Quetta society, so that all may learn something of the type of young officer Quetta is turning out for the needs of the Empire.

Programme of Work for Week from 21st to 26th June 1915.

"A" PLATOON.

	7 a.m. to 8 a.m.	8-30 a.m.	9-30 a.m. to 10-15 a.m.	10-30 a.m. to 11-15 a.m.	11-30 a.m. to 12-15 p.m.	12-30 p.m. to 1-15 p.m.	1-45 p.m.	2-30 p.m. to 3-15 p.m.	3-30 p.m. to 4-15 p.m.	7 p. m. to 8 p. m.	Remarks.
Monday 21st ..		Tactical Scheme *		Breakfast 10-30 a.m.	Tactics A.	Urdu B.	Lunch	Military Sketching A.		Physical Training	*Parade at 7-15 a.m.
Tuesday 22nd ..	Physical Training	Breakfast	Drill	Military History B.	Drill	Urdu B.	"	Military Engineering *		Urdu	*Parade at Engr. Field Park.
Wednesday 23rd.	Physical Training	"	Drill	Military History A.	Drill	"	"	"		"	"
Thursday 24th..		Tactical Scheme *		Breakfast 10-30 a.m.	Law & Organisa- tion. B.	Urdu B.	"	Military Sketching A.		Physical Training	* Parade at 7-15 a. m.
Friday 25th ..	Physical Training	Breakfast	Drill	Medical Organisa- tion. B.	Drill	Tactics B.	"	Military History A.	Law & Organisa- tion.	Urdu	"
Saturday 26th..	Physical Training	"	Drill	Law & Organisa- tion. B.	Drill	Urdu B.	"	Military Engineering *		"	*Parade at Engr. Field Park.

Note.—The Hall of Study (A or B) in which each lecture takes place is shown against each subject.

Programme of Work for Week from 21st. to 26th June 1915.

"B" PLATOON.

	7 a. m. to 8 a. m.	8-30 a.m.	9-30 a.m. to 10-15 a.m.	10-30 a.m. to 11-15 a.m.	11-30 a.m. to 12-15 p.m.	12-30 p.m. to 1-15 p.m.	1-45 p.m.	2-30 p.m. to 3-15 p.m.	3-30 p.m. to 4-15 p.m.	7 p. m. to 8 p. m.	Remarks.
Monday 21st. ..		Tactical Scheme *		Breakfast 10-30 a.m.	Tactics B.	Military History A.	Lunch	Law & Or- ganisation. B.	Urdu B.	Physical Training	*Parade at 7-15 a.m.
Tuesday ..	Drill	Breakfast	Drill	Military Sketching A.			"	Law & Organisa- tion.	Urdu* B.	Physical Training	..
Wednesday 23rd.	Physical Training	"	Drill	Law & Organisa- tion.	Urdu B.	"	"	..	..	..	..
Thursday 24th ..		Tactical Scheme *		Breakfast 10-30 a.m.	Medical Organisa- tion. A.	Military History A.	"	Tactics B.	Urdu B.	Physical Training	*Parade at 7-15 a.m.
Friday 25th ..	Drill	Breakfast	Drill	Military History A.	Drill	Urdu A.	"	Military Engineer- ing *		Physical Training	*Parade at Engr. Field Park.
Saturday ..	Physical Training	"	Drill	Urdu A.	Military Sketching A.		"	Military Engineer- ing. *		..	*Parade at Engr. Field Park.

Note.—The Hall of Study (A. or B.) in which each lecture takes place is shown against each subject.

Cadet College, Quetta.
SUMMER TIME TABLE.

Details for	Monday, Tuesday, Thursday, Friday and Saturday.	Wednesday.	Sunday.
Reveille	6 a. m.	6 a. m.	7 a. m.
Chota Hazri in Mess (flannels)	6-30-7 a. m.	6-30-7 a. m.	7-30-8 a. m. (voluntary)
Physical Training and Urdu	7-8 a. m.	{ 7-8 a. m. 9-30-10-30 a. m.	.....
Breakfast (in khaki uniform) parade...	8-30 a. m.	8-30 a. m.	8-30 a.m. (dependent on time of Church Parade.)
Orderly Room	9-15 a. m.	9-15 a. m.	.....
Instruction under orders of Asst. Comdt.	9-30a.m.-1-30p.m.	10-30 a. m.—12-30 p. m.	.....
Hospital Attendance	9-30 a. m.	9-30 a. m.	.....
Luncheon (Parade)	1-45 p. m.	1-45 p. m.	9-30 a. m.
Afternoon work	2-30-4-30 p. m.	Half Holiday	1-45 p. m.
Extra work	.....	2-30-3-30 p. m.	.....
Restriction and extra Roll Calls	.....	3-30 p.m., 4-15 p.m., 5 p.m. and 9-30 p. m.	5 p. m. and 9-30 p. m.
Tea and Recreation (Individual *Urdu)	4-30 till 7 p. m....	.....	Tea between 4-30 & 5-30 p. m.
Extra Drill for Instruction	5-15-6-15 p.m.	.....	..... every day in Mess.
Physical Training and Urdu (flannels)	7-8 p. m.	.....	.....
Dinner (parade)	8-30 p. m.	8-30 p. m.	8-30 p. m.
First Post	9-45 p. m.	9-45 p. m.	9-45 p. m.
Last Post	10-15 p. m.	10-15 p. m.	10-15 p. m.
Lights out	10-30 p. m.	10-30 p. m.	10-30 p. m.

*Cadets will receive half-an-hour's individual Urdu instruction every other day between 4-30 and 7 p.m.
Total Week's Work—5 by 8 plus 4=44 hours; i.e., 20 hours followed by half holiday; and 24 hours followed by whole holiday.
Gentlemen Cadets for Physical Training will fall in five minutes before hours ordered on the Physical Training Ground.
NOTES:—Extra Drill, Drill Order.
Restriction and Stoppage of Loose Roll Call:—
Wednesdays:—3-30 and 4-15 p. m.. Drill Order 5 p. m.. Walking out dress; 9-30 p. m. Drill order.
Sundays:—Dress, Church Parade Order, 5 p. m. and 9-30 p. m.

MEDICAL OFFICER.	CHIEF CLERK.	ASSISTANT COMMANDANT.	ADJUTANT & Q.M.	VETERINARY OFFICER.	CHAPLAIN;
Hospital Staff.	Clerical, Drawing, Litho. Printing, and Staffs other than Q. M.	G. S. O. I.	College Administration.	Vety. Staff.	
		Q. M. Sergt. Issue of Mess Staff and Staff. all orders. and servants.			

CHIEF INSTRUCTOR URDU.	RIDING MASTER.	G. S. O. II.	G. S. O. II.	G. S. O. II.	COMPANY COMMANDER.
5 Regtl. Munshis.	(Musketry, Military History and Tactics).	Military Engineering, (Military Law, Organisa- tion and Administration, Tactics).	Military Sketching, and Tactics).		(Drill, Musketry, Physical training, Signalling, Minor tactics, etc.)
	3 Rough Riders.				
	Company Commander (for such subjects as dealt with by G. S. O. II.	Company Commander (for such subjects as dealt with by G. S. O. II.)	Company Commander (where concerned).	Company Officer.	Company Officer

A Platoon Instructional B. Platoon. N.C.O's
of Cadets, staff of N.C.O's.

A Platoon Instructional B. Platoon. N.C.O's of Cadets, staff of N.C.O's.

ENGLAND AND RUSSIA.

The following remarkable appreciation of the situation by Froude in 1877 on the outbreak of the Russo-Turkish War is of special interest at the present time.

“ Any contribution to our knowledge, which is true as far as it goes, ought to be welcome to us,—welcome to us especially at the present crisis,* when the wise or unwise conduct of English statesmen may effect incalculably for good or evil the fortunes of many millions of mankind. To Russia and England has fallen the task of introducing European civilization into Asia. It is a thankless labour at the best ; but circumstances have forced an obligation upon both of us, which neither they nor we can relinquish ; and our success depends for its character on the relations which we can establish between ourselves. If we can work harmoniously together for a common object the progress of the Asiatic people will be peaceful and rapid. If we are to be jealous rivals, watching each other's movements with suspicion, and on the lookout to thwart and defeat each other, every kingdom and tribe from the Bosphorous to the Wall of China will be a centre of intrigue ; and the establishment of the new order of things may be retarded for centuries, or disgraced by wars and revolutions from which we shall all alike be sufferers. On the broadest grounds, therefore, it is our interest to be on good terms with Russia, unless there is something in the Muscovite proceedings so unqualifiedly bad that we are positively obliged to separate ourselves from them. And before arriving at such a conclusion we must take more pains than we have done hitherto to know what the Russians are. If we could “crumple” them up as Mr. Cobden spoke of doing, we might prefer to reign in the East without a rival. But “crumpling up” is a long process, in which nothing is

*1877 during the Russo-Turkish War.

certain but the expense of it. That enterprise we shall certainly not attempt. There remains, therefore, the alternative, either to settle into an attitude of fixed hostility to a Power which will always exist side by side with us, or to place on Russia's action towards the Asiatic races the same favourable construction which we allow to our own, and to ask ourselves whether in Russia's conduct there is anything materially different from what we too accept as necessary in similar circumstances.

The war of 1854 was a step in what I considered then, and consider now, to have been the wrong course—a course leading direct, if persisted in, to most deplorable issues. The war had been made inevitable from the indignation of the Liberal party throughout Europe at Russia's interference in Hungary. Professedly a war in defence of Turkey, it was fought really for European liberty. European liberty is no longer in danger, nor has the behaviour of Turkey since the peace been of the kind to give her a claim on our interest for her own sake. The Ottoman Empire has for half a century existed upon sufferance. An independence accompanied by a right of interference by other nations with its internal administration has lost its real meaning, and the great Powers have been long agreed that the Porte cannot be left to govern its Christian subjects after its own pleasure. The question is merely in whom the right of supervision is to reside. Before the Crimean war they were under the sole protectorate of Russia. The Treaty of Paris abolished an exclusive privilege which was considered dangerous, and substituted for it, by implication, a general European protectorate. It seemed likely to many of us that while other objects of the war might have been secured, the ostensible occasion of it would be forgotten; that the Christians, having no longer Russia to appeal to, would be worse treated than before; and that after a very few years the problem of how to compel the Turk to respect his engagements would certainly return. Such anticipations, in the enthusiasm of the moment were ridiculed

as absurd and unpatriotic. The Turk himself was to rise out of the war regenerate, and a "new creature". He was to be the advanced guard of enlightenment, the bulwark of Europe against barbarism. There was no measure to the hopes which English people indulged in those days of delight and excitement. But the facts have gone their natural way. The Turk has gone back, not forward. His Christian subjects have appealed once more for help, and the great Powers, England included, have admitted the justice of their complaints, and the necessity of a remedy. Unhappily England could not agree with the other Powers on the nature of the remedy required. Russia, unable to trust further to promises so often made and so uniformly broken, has been obliged to take active measures, and at once the Crimean ashes have again been blown into a flame; there is a cry that Russia has sinister aims of her own, that English interests are in danger, and that we must rush to the support of our ancient friend and ally. How we were decently to do it, under what plea, and for what purpose, after the part which we took at the Conference, is not explained. The rest of Europe is not alarmed. The rest of Europe is satisfied that the Turk must be coerced, and looks on, if not pleased, yet at least indifferent. If we go into the struggle we must go in without a single ally, and when we have succeeded in defeating Russia, and re-establishing Turkey, (there is another possibility that we may not succeed, but this I will not contemplate),—as soon as we have succeeded, what then? After the censures to which we stand committed on Turkey's misconduct, we cannot in decency hand back Bulgaria to her without some check on her tyranny. We shall be obliged to take the responsibility on ourselves. England will have to be sole protector of the Bulgarian Christians, and it is absolutely certain that they would then be wholly and entirely at the Turks' mercy. It is absolutely certain that we should be contracting obligations which we could not fulfil if we wished. We should demand a few fine promises from the Porte, which would be forgotten

as soon as made. A British Protectorate is too ridiculous to be thought of, and if the alternative be to place Bulgaria under a Government of its own, that is precisely the thing which Russia is trying to do. To go to war with such a dilemma staring us in the face, and with no object which we can distinctly define, would be as absurd an enterprise as England was ever entangled in. Yet even after Lord Derby's seeming recognition of the character of the situation, there is still room for misgiving. In Constitutional countries politicians will snatch at passing gusts of popular excitement to win a momentary victory for their party. Our Premier, unless he has been misrepresented, has dreamt of closing his political career with a transformation scene,—Europe in flames behind him, and himself posing like Harlequin before the footlights. Happily there is a power which is stronger than even Parliamentary majorities,—in public opinion; and public opinion has I trust, already decided that English bayonets shall not be stained again in defence of Turkish tyranny. It will be well if we can proceed when the present war is over, to consider dispassionately the wider problems, of which the Turkish difficulty is only a part.

(Preface to a series of letters by a Russian Lady, published under the title. "*Is Russia wrong*". (Hodder and Stoughton).)

NOTES ON THE VARIOUS SOURCES OF SUPPLY OF REMOUNTS TO CAVALRY REGIMENTS IN INDIA UNDER JOHN COMPANY.

By

CAPTAIN V. HODSON, 10TH D. C. O. LANCERS.

The following few notes, although they do not claim to be in any way exhaustive, are intended to give a rough and general idea of the source and manner of supply, cost to Government, and description of various types of remounts to be found in Cavalry regiments, both British and Native, in the Bengal Army during the first half of the 19th century. Incidentally, it will be necessary to touch briefly on the measures taken by the Hon'ble East India Company to increase and improve the breed of horses in India during this period; and in this connection to trace shortly the history, from its inception, of the Stud Department—the precursor of the modern Remount Department.

Before proceeding further it will be necessary to recall the fact that the mounted portion of the Bengal Army consisted firstly of 2 or 3 Regiments of Light Dragoons, taken over, as nowadays, from the Imperial Government at Home for the period of their foreign service in India. Secondly, of various Troops of Bengal Horse Artillery (the *personnel* of which was European), which were absolutely under the Company and which never left India—except, of course, on active service. Thirdly, it consisted of various Regiments—the total number towards the end of the period with which we deal eventually reached ten—of Bengal Light Cavalry. These Regiments were non-silladar, and none of them survived the Mutiny. Lastly, there were a certain number of Regiments—eventually totalling ten—of Irregular, Silladar Cavalry which are now represented in the Army List by the 1st Skinner's Horse to the 8th Cavalry, both inclusive.

The system of remounting the whole of the above was the same throughout, except for the fact that the Irregular

Regiments, although they occasionally obtained their remounts from the stud, paid for them, as nowadays, out of their regimental Chanda funds.

As early as 1764 an official attempt was made to form a breeding centre at Buxar, it being the intention of Government to form a nucleus for a stud from the mares captured by Sir Hector (then Major) Munro after the battle near that place. Unfortunately for the success of this scheme, so great an interval of time elapsed before Government stallions were introduced into the district, that the majority of the mares had either died, strayed, or been stolen by the time they arrived; so the original plan came to nothing. No further steps apparently were taken in this direction until the year 1794; but before proceeding to describe what these steps consisted of, it may be of interest to detail briefly the method of procuring remounts during the interval of 30 years which elapsed between the Battle of Buxar and the inception of the Stud Department.

At the period with which we are now dealing, *viz*:—the last 30 years of the 18th century, the total strength of the Cavalry on the Bengal Establishment did not at any period exceed 1,000, including the Governor-General's Body Guard, and was usually nearer 500; so that the difficulties of remounting them could not have been great. Remounts were purchased as required, or as opportunity offered, by Commissariat Agents from Kabuli dealers, zemindars and others; and it was laid down that their age was not to be under 3 or over 6 in time of peace, and not under 4 or above 9 in time of war. Their size not under 14—2, and their bone and strength to be particularly looked at.

As regards price, no specific reference to the subject appears in Bengal Army Orders; but in the year 1805 the Madras Government bought 1200 remounts from Scinde, Kathiawar, Lahore, Cabul and Persia at an average price of 106 star pagodas. The star pagoda was a gold coin which was in circulation in the Madras Presidency. Its value in

1818, when it was abolished, was about $3\frac{1}{2}$ rupees ; so that 106 star pagodas would represent about Rs. 650 in modern money. In the same year, 1805, 32 mares were sold by auction out of the Body Guard, and realised an average of Rs. 321 each—exactly the same price as the Madras horses.

After purchase, and before admission into the Service, these horses had to be passed by a Committee of Officers who were to be selected on account of their possessing the greatest skill and judgment in horses, and not according to any roster. It was further laid down that the Commanding Officer of the Regiment which was to receive these horses was not to be a member of the Committee of inspection. He was, however, to attend it and was to be permitted to offer his opinion on the fitness of the horses offered by the Commissariat Agent : if, however, his opinion were overruled by the majority of the Committees, their decision was to be final.

Subsequently it was laid down that Committees were not to reject any horse merely on the grounds of its being 3 or 4 months under the prescribed age, provided it were otherwise suitable.

At the same time as horses were passed by these Committees they were to be branded with the letter X on the near shoulder—the off shoulder being reserved for the regimental brand when finally delivered over to corps. They were also to be branded—it is not stated where—with a number ; these numbers were to run consecutively from 1 upwards, and the number of any horse becoming a casualty was not to be awarded to its replacement.

A similar Committee was ordered to assemble annually on 1st October for the purpose of inspecting and casting horses unfit for further service. These horses, after casting, were to be branded in the presence of the Committee with the letter R on both quarters, and they were then to be sold by public auction.

As regards the type of horse procurable at this period—

it is practically certain that they were nearly all imported from beyond the North-West Frontier,—principally Turcoman horses brought down in strings by Kabuli dealers from beyond Kabul for sale in Lucknow and other centres. Shortly after the commencement of the 19th century the supply of horses from this source was cut off almost entirely, owing partly to the heavy duties levied on the dealers in their passage through the various States, partly to the danger of their being intercepted by the Sikhs. The breed of horse indigenous to Bengal (it must be borne in mind that Bengal of those days extended as far as Cawnpore, Agra, Lucknow—that we now know as the United Provinces) was beneath contempt; in fact no better than ekka tats. As regards its horse supply, Bengal was much worse situated than either Madras or Bombay, both of which Presidencies imported Arabs freely from the Persian Gulf. Bombay also had the coast of Cutch to draw on for Kathiawaries; though a few of these, it is true, found their way down country into Bengal. Kathiawaries were then, as now, distinguished by the peculiar dip in the back, the black list, and the ears pointing inwards. Tradition asserts that this breed was descended from 7 Arab horses saved from an Arab merchant ship which was wrecked on the coast of Cutch. A similar tradition ascribed to Galloways a descent from Spanish horses on board some of the ships of the Armada which were stranded on the shores of that county.

One other breed there was, for which India had long been famous, and which is mentioned by many of the old travellers; but it was almost extinct even at this period. This breed, which went by the name of Jungle Tarzees, used to be raised in the country lying between the Jumna and the Indus, the northern portions of Bikanir and Bahawalpur, which district was then known as the Lukhee Jungle.

Whatever the type, however, suitable horses do not ap-

pear to have been forthcoming in sufficient numbers. In a minute on the subject of sending reinforcements from the Bengal Army to the assistance of the Madras Government, written by Lord Cornwallis, the Governor-General, in 1787, he says—"In regard to horses . . . those of the two Rissalas are too old for such a distant service."

This state of affairs continued down to the year 1794, in which year Government formed the idea of starting a stud with the object of raising within the British Provinces a sufficient supply of horses for its cavalry; recognising that in the event of a European war—a normal condition in those days—its exterior supply was likely to be cut off. With this object in view a Committee, known as the Board of Superintendence for improving the breed of Cattle, was formed under the Board of Revenue. A Superintendent was appointed, whose only qualification for the post appears to have been that he was an A. D. C. to the Governor-General, and a secretary was nominated on a salary of Rs. 250-0-0 per mensem, plus Rs. 250-0-0 house rent—equivalent to a salary of Rs. 1,000-0-0 per mensem at the present value of the rupee.

The place selected for the experiment was Pusa in Bihar; which locality was chosen partly on account of the cheapness of grain and labour in those parts, but principally on account of its security from an enemy—a reason which brings home to us the unsettled state of India in those days.

The Stud consisted of three branches, *viz*:—Home, *Nisfee*, and *Zemindari*. The first, in buildings on the stud lands, contained stallions, mares, and their produce till the latter was of an age fit for the army, the market, or for breeding. The second, *Nisfee*, signifying half and half, or partnership, consisted of mares the property of the stud, covered by its stallions, and boarded with farmers living in its neighbourhood. The produce, when of a certain age, was valued; half the estimated worth was allowed to the zemin-

dar, half was retained for the use of the mares. The produce was kept at the stud, till of a proper age for disposal. The third, *Zemindari*, consisted in stallions being placed about the country whose services were available, free of all cost, for the mares of the zemindars. The pick of the produce was bought and kept at the stud.

As may be imagined the first was the only branch which gave really satisfactory results. The *Nisfee* branch was by far the largest of the three, but owing to lack of accommodation the produce could not be bought at a sufficiently early age before it had been injured by mismanagement. The *Zemindari* branch was unsatisfactory, as the mares were generally of poor quality and the stallions not of the best.

In 1801 the rules regarding height were modified to the extent of allowing horses of 14 hands 1 inch to be received into the service provided that,—to quote the actual words of the order in question,—“they possess sufficient bone, strength and activity, and are unexceptionable in other essentials.” This Order closed with an expression of the reliance of the Commander-in-Chief on the circumspection of Presidents and Members of Committees of Admission, that the latitude thus granted in respect to height would neither be abused nor carried to an extent that might prove prejudicial to the public service. In 1816 the standard height of stud-breds and zemindar's horses presented to the Committees for approval before being drafted to Regiments was further reduced to 14 hands.

In August 1802 the addition of a Veterinary Surgeon to the establishment of the Stud was sanctioned. It appears, however, that in November of the same year, owing probably to the scarcity of properly qualified Vets., the Assistant Surgeon in medical charge was ordered to officiate as Veterinary Surgeon in addition to his own medical duties. He was at the same time granted a monthly allowance of Rs. 150/- for providing human medicines, and 3 annas per

month for every horse, mare and foal for veterinary medicines. One cannot help wondering what his qualifications for the post were!

In 1803 a Subaltern was appointed as Assistant to the Superintendent of the Stud on a Staff salary of Rs. 300/- per mensem in addition to Regimental pay and allowances. Six years later Travelling Allowance at Rs. 4/- per diem was sanctioned for the officer holding this appointment, whilst actually travelling on duty in connection with the Stud.

✓In 1808 the Court of Directors in England, realising the unsatisfactory state of their stud in India, determined to place it on a sound basis. With this object in view they decided to appoint an experienced man as Superintendent of the Stud, and their choice fell on a certain Mr. William Moorcroft—a man known to posterity principally on account of his later exploits as a traveller and explorer.

Moorcroft's career was such an unusual one that a short biographical sketch may not be out of place here. A native of Lancashire, he studied at the Liverpool Infirmary with the intention of becoming a surgeon. Whilst there a peculiar epidemic disease broke out amongst the cattle of the surrounding district, and he was deputed, together with one of the medical staff of the Infirmary, to examine the disease on the spot. So successful was his work in this direction that he was strongly urged by his instructors to abandon a medical for a veterinary career. It must be understood that at this period, about 1790, veterinary science was but in its infancy, and veterinary practice was considered as being a rather degraded profession.

Moorcroft with some reluctance decided to follow the advice tendered him, and, there being then no veterinary school in England, went over to France and pursued his studies in that country. On his return he settled in London, went into partnership with another man, and for some years carried on a prosperous and most lucrative business as a Veterinary surgeon. Unfortunately for him (but fortunately, as subsequent events proved, for the Cavalry service in

India), he engaged in some injudicious project for manufacturing cast-iron horse-shoes, lost the greater part of his fortune, and was only too glad to accept an offer from the Court of Directors to go out to Bengal as Superintendent of their Military Stud on a salary of Rs. 30,000 per annum—equivalent approximately to Rs. 5,000 per mensem nowadays.

With his subsequent adventures as a traveller and explorer in order to promote commerce between India and the neighbouring countries, as also for the purpose of extending the world's knowledge of geography, we have no concern here. His frame, however, rests more on the circumstance of his having been the pioneer in the exploration of British Central Asia than on his achievements as a scientific geographer. Suffice it to note that he visited Garhwal, Ladakh and Western Tibet, traced the sources of the Indus and Sutlej, was for some time detained a prisoner in Afghanistan, and died eventually at Andikhui in the north of that country in 1825 at the age of 60.)

Moorcroft sailed from England in May 1808, reached India in November and at once proceeded to Pusa to take up his appointment. It did not take him long to discover that the Stud was not being run on sound lines, either scientific or commercial, and soon arrived at the conviction that the Arab sires were chiefly to blame for the lack of size and strength apparent in the Government remounts. In order to ameliorate this condition he proposed to Government that the best method of introducing bone and blood into the breed would be by the importation of Turcoman sires from Central Asia and of English sires from Home. Having obtained the sanction of Government to his return to England for the purpose of selecting suitable stallions, he was on the point of departing when, for some reason or other, the project was abandoned. Consequently he turned his attention to the neighbourhood of Balkh and Bokhara, and it was primarily for this reason that his subsequent travels were undertaken.

It must not be supposed from the foregoing that English sires were unknown in this country prior to Moorcroft's day. On the contrary, the Court of Directors had for some time past been in the habit of shipping out every season to their Stud in India one or two valuable stallions, sometimes race-horses which had gained celebrity on the turf at Home, more usually the produce of their home Stud farm; but they were insufficient in number to have much effect on the country-bred in general. The following extract from a letter from the Court of Directors, dated 30th March 1810, is but one example of many similar letters preserved amongst the archives of the Government of India. "Para. 6th—We consign you by the *Phoenix* two very valuable colts, the produce of our Stud Farm in this country.

"Two recruits for the Company's service will proceed on board that ship in charge of the colts, and we desire that if, upon the arrival of the ship at Bengal, it should appear to you that the horses have been carefully attended to, and that the commander makes a favorable report of the attention of the recruits during the voyage, you cause a gratuity to be paid to each recruit equal to 50 Sicca Rupees."

Private individuals also occasionally imported English horses and disposed of them, no doubt at no small profit, to Rajahs and others. An instance of this may be found in General Orders of 30th September 1813, wherein a gallant Major of Sappers was severely censured by Government and suspended from the service of the Hon'ble Company for having, to quote verbatim, "attempted to dispose of an English horse to His Highness the Nabob of Bengal, for the exorbitant sum of a lakh of Rupees, and to enforce payment by menace." The order of suspension was apparently remitted, and this little incident seems to have had no disastrous effect on the Major's subsequent career, as he served for a further 16 years in India, retiring eventually as a K. C. B.

On Moorcroft's recommendation the Stud was enlarged in 1814 by the formation of two new branches at Hajipur, near Dinapore, and at Ghazipur, both on the Ganges. Pusa and Hajipur were maintained solely for the purpose of breeding, collecting and rearing colts up to a certain age ; whilst at Ghazipur attention was entirely directed towards preparing them for the Army and for the market. The Ghazipur district had for some years past proved one of the best buying districts, perhaps on account of its nearness to Buxar, where, as already related, it had originally been intended to start a Stud. It was consequently found to be a most suitable centre both for the purchase of horses at the numerous fairs held in the neighbourhood as also for the distribution of horses to Cavalry Regiments, most of whom, at this period, were stationed within easy reach of the place.

Before leaving the subject of Moorcroft, it is interesting to note that he is generally credited with having been the first to introduce oats into India ; and to the use of this grain as a food for the remounts at the Pusa Stud may perhaps be ascribed a certain amount of the success which attended his efforts at that institution.

In the year 1815—7 years after Moorcroft first took up his duties at the Stud, the Marquis of Hastings, then Governor-General, visited the farms at Ghazipur and Hajipur and records in his diary, from which the following extracts are taken, the great improvement which had taken place under Moorcroft's administration. Writing under date the 9th September, 1815, he says : " This morning we reached Ghazipore. After dinner I went to look at about 450 young horses, bred at the Company's stud. They clearly evinced the improvement attained in the breed of horses at that institution. Nothing is so erroneous as the opinion entertained in England, that fine horses are common in India. Even middling ones are rare and high-priced. The ordinary run are of very inferior quality. "

A week later he visited Hajipur and writes—"Between 4 and 5 o'clock I went ashore to inspect part of the stud, the object of my visit thither. The brood mares were what I had gone to see this afternoon. Those lately procured from Katywaur and Cutch were what pleased me best. The Arab mares, though they have elegant shape, are very slight; probably they are of inferior race. The Persian and Jungle-tazees have more strength, with good form. These, however, which I first named unite more serviceable qualities than any of the rest.

"September 17, 1815.—I went ashore at dawn, and had a large number of colts and fillies, chiefly two-year olds, led past me. It was impossible to see them and not to be sensible how far the plan has answered towards introducing a better breed of horses into the country. It appeared to me that the stock got by English horses was clearly the most promising. After that, those got by a Katywaur horse, called Runjeet Singh, showed the best character. The progeny from Arab sires was not as good; probably because there is not in the mares sufficient size to correct the want of it in the horses. The system now proceeded upon is a judicious one. Mares are given from the stud to the zemindars, on their binding themselves to forfeit a certain sum if they sell the mare, or if she be stolen under circumstances justifying suspicion or connivance. The mares are to have the benefit of the stud horses gratis; and Government is to have the refusal of the produce at one year old for a hundred rupees (12£. 10S.); it is obvious how much the extension of this plan must forward our object of securing a remount of horses sufficiently strong for the cavalry, so as not to be left to precarious dependence on neighbouring countries, which at best rarely send us horses of adequate bone. It is really interesting to compare the shapes of horses of such various races. The English horses were, beyond any doubt, the best. I have examined here about 600 horses of various

breeds and crosses."

Having now arrived at the year 1820, it would be as well, before proceeding further, to take a brief retrospect and give a few extra details to which so far no reference has been made. In the first place, incredible as it may at first sight appear, none but entire horses were ever ridden in the ranks prior to the year 1808. On March 6th 1808, however, the following Field Army Order was issued by Major-General St. Leger:—

"The Major-General commanding in the field, under instructions from the Commander-in-Chief, directs the attention of the Cavalry Agent to the procuring of good mares, it being his Excellency's intention to mount the 8th Regiment upon that plan in the proportion that mares can be obtained for the completion of a Squadron at a time. It is to be understood that none but of the best description are to be purchased on the present occasion, such as in bone, figure and action are fit for any service that cavalry may be employed on. None are to be admitted into the service under four years old, or of a standard less than 14 hands 2 in."

The foregoing Order was, however, rescinded before long (the exact date I have been unable to discover) and mares were turned out of the ranks on account of the unfavourable reports received of them. The Body Guard had previously had a few mares in the ranks, but they were all cast and sold by auction in 1805.

In 1816, on the recommendation of the Pusa officials, Government decided to try the experiment of introducing Geldings into the ranks. Accordingly, by General Orders of 18th September of that year, orders were issued that the left troop of every Cavalry Regiment was, in future, to be mounted on geldings which were to be obtained from the Pusa stud. After 3½ years' trial the experiment was discontinued, and the following Order, dated 11th March, 1820, was issued:—

"It having been proved to the satisfaction of the Com-

mander-in-Chief from the result of the experimental introduction of geldings into the Cavalry service, by the formation of a Troop in each Regiment, mounted entirely on cattle of that description, as directed in General Orders of the 18th September 1816, that the general adoption of the system which obtains in Europe of mounting Cavalry on castrated horses, would very materially impair the efficiency of that arm in this country, His Excellency is pleased, under the sanction of Government, to direct the Gelding Troops to be broken up, and the cattle attached to them to be dispersed among the different Troops of Corps respectively, so that all the Troops of which each Regiment is composed shall be placed comparatively on the same footing in which they stood previously to the promulgation of the General Orders above referred to."

Twenty-seven years elapsed before they were again introduced, first in the 11th, afterwards in the 10th Light Cavalry, and from that time entire horses began to disappear from the ranks, though slowly.

As regards the allotment of remounts from the Ghazipur Depot; formerly the Horse Artillery were given the pick, then the European Cavalry, and lastly the Native Cavalry. In 1806 it was laid down that Committees should be very particular in selecting horses for His Majesty's Light Dragoons, but that when once allotted to that branch of the Service none were ever to be transferred to any corps of Native Cavalry without the express sanction of the Commander-in-Chief. In 1817 the European Dragoons were given an equal choice with the Horse Artillery. A year later it was arranged that out of every batch of twenty 8 went to the European Dragoons, and 6 each to Horse Artillery and Native Cavalry, the horses to be drawn for by lot. General Orders of 18th December 1818 give elaborate instructions as to the manner in which the drawing was to be conducted, even going to the length of describing how the tickets, after being folded up to the same size, were to be placed in a hat and

well mingled together.

In General Orders of 8th March 1803 it was directed that "the tails of horses in Regiments of Native Cavalry shall be of that length as to reach to two inches above the hock, and that they be always kept of that length."

As regards the purchase by Officers of chargers from Remount Depots or from the ranks—permission was first granted to Subalterns and Quartermasters in 1798 to buy one charger out of the remounts allotted to their corps for Rs 400. In 1807 this indulgence was extended to all ranks, and Officers were permitted to select any horse out of their Regiment for Rs. 800, once only. It was at the same time laid down that no horse so selected could be disposed of out of the Regiment until the purchase of it had been refused by every Officer in the Regiment.

Officers whose chargers were killed or disabled in action received Rs. 800 from Government in compensation. In 1805 a Cornet fought the D. D. O., or his predecessor of that day for Rs. 800 compensation for his second charger which was carried off by the enemy during an action whilst being led by the syce. Unfortunately he lost his case, although it was taken right up to the Governor-General in Council.

The subject of the price of horses (both private as well as Government) at this period is such a lengthy one that it has of necessity been omitted; but it may be of interest to know that in the early days of the 19th century £100 to £150 was not considered an out-of-the-way figure for even a junior Officer to pay for a good Arab or Northern charger—this too when there was no racing outside the Presidency towns. On the other hand it must be remembered that, what with loot and prize money, officers were better off and had less opportunities of spending money than nowadays. Also, it was no uncommon occurrence for a Subaltern to win (or lose) £50 at Hazard during one night's play.

From the year 1820, down to its abolition under Im-

perial Rule after the Mutiny, the Stud department gradually declined in efficiency as well as in popularity with the mounted branch of the service. It did not, however, curtail either the sphere of its labours or its numbers.

Between the years 1815 and 1820 the department was at the zenith of its career; due undoubtedly, in great measure, to the success of Moorcroft's policy of administration which by this date had been sufficiently long in practice to make its influence felt. On Moorcroft's departure, however, there was, for many years, no equally able successor on whom his mantle might descend. It is, of course, after this lapse of time, difficult to estimate how far the charge of inefficiency and unpopularity against the Stud was merited; but from a perusal of the mass of printed evidence in support of the charge it is certain that it could not have been altogether groundless. Such well-known authorities as Outram, Napier and Gilbert reported adversely on various dates during the 'Forties' and 'Fifties' on the type and efficiency of horses bred at the Government Stud—whilst throughout the 'Twenties' and 'Thirties' several letters and articles on the same theme from the pens of anonymous Officers of both Cavalry and Artillery appeared in the newspapers as well as in the Service journals of the day.

The reasons for the decline in popularity of the Stud, bred remount are not far to seek—it was primarily a question of price, or value for money. By the end of the first quarter of the 19th century the standard of the ordinary indigenous zemindar's horse had improved so greatly that for the sum of Rs. 500-0-0 one might purchase an animal the equal in every respect of a Stud-bred which had probably cost the State double that sum by the time it was drafted into a Cavalry regiment.

Ten to fifteen years later Colonial horses were arriving in India which cost, landed at Calcutta, Madras, or Bombay, scarcely two-thirds of what a Stud-bred cost. Coupled with the above was the increasing esteem in which both Arabs

and Persians were held for military work as compared with either the Country or Stud-bred. Can it be wondered at, therefore, taking the above into consideration, that the popularity of the Stud-bred should be on the wane in military circles.

Before, however, going further into this question, let us hark back for a moment to the year 1820, and trace shortly from that date the subsequent history of the Stud Department.

Somewhere about 1820 Government realized that its Stud was being run at a loss. In order to put a stop to this state of affairs it was decided that the pick of the depots, exclusive of those chosen as stallions, should be set aside for private sale in Calcutta and elsewhere; the second selection were to be reserved for Officers' chargers at Rs. 800, subsequently increased to Rs. 1,000; whilst the remainder, which were unsaleable either in the open market or to Officers were to be sent as remounts for Horse Artillery and Cavalry, supplemented by ordinary Country-breds purchased at fairs, etc. This was too much for Commanding Officers—particularly Commanders of Horse Batteries—and loud were the protests raised by them—but without avail.

Their arguments are too lengthy to be entered into here; but the Bengal Horse Artillery most certainly had a legitimate grievance, for, as they pointed out, Bengal was the only Presidency in which a much larger sum was not allowed for the purchase of horses for its Horse Artillery than for horses for the Cavalry serving there. "Prior to the year 1820" they said, "we used to receive remounts such as the most fastidious Commanding Officer could not object to; nowadays, when the pick of the Stud are sold privately, we get horses which are hardly fit to drag a Calcutta *karanchi*."

When Light Field Batteries were first horsed the remounts supplied were undersized and inferior. As indicative of the scant attention paid to the mounting of these Batteries at this period we may quote G. O. C. C. of 30th March 1827, which directed that such of the *cast* horses of Cavalry Regi-

ments as might be deemed suitable should be made over to them. Naturally the Commanders of such Batteries (in those days of the rank of Captain only) objected, and promptly presented them to the next casting committee—but apparently without meeting with any success.

It may here be noted that ten years previously, *i. e.*, July 1817, orders were issued to casting committees to select from amongst the horses they cast as unfit for further regimental service any horses they might think fit to be sent to the Stud as stallions.

As regards the Stud Department itself little remains to be told. A small depot was established in Calcutta near the lines of the Governor-General's Body Guard at Ballygunge. This was abolished in 1835 at the request of the Commandant of the Body-Guard who objected to having his horses subjected to the very possible risk of infection from such a source, the Body-Guard lines themselves being already sufficiently insanitary.

By G. O. G. G. of 28th June 1837—"The objectionable privilege of taking horses from the ranks, whether by officers of mounted corps or by any other individuals whatsoever, is no longer allowed, and in future officers' chargers are to be selected from remount horses only, or by purchase in the market. The price to be paid by officers for a horse selected from the remounts of their corps is Rs. 600."

In 1845 the Department consisted of two main branches, one for the Central Provinces and one for the North-West Provinces, each under a Superintendent. The former branch consisted of the Depots at Ghazipore, Buxar, Pusa and Kurruntadhee; the latter of Hapur, Saharanpur and Hissar. The *personnel* (in addition to the two Superintendents—one of whom was a Lieutenant-Colonel and the other a Captain, both of the Native Infantry) consisted of:— 2 1st Class Assistants, 2 2nd Class Assistants, and 5 Sub-Assistants, together with 4 Veterinary Surgeons and 2 Doctors. In 1846 (G. O. G. G., 7th October) the Depot was removed from Muttra to Karnal

and its establishment remodelled; it was now to consist of:— 1 Superintendent, 1 Assistant Superintendent, 1 Riding Master, 1 Assistant Riding Master, 2 Drill Havildars, 2 Drill Naiks and 50 Rough Riders.

By G. O. C. C. of 2nd August 1853 it was ordered that horses passed into the Service should be divided into four classes: 1st, Chargers; 2nd, Horse Artillery; 3rd, H. M. Dragoons; 4th, Bengal Light Cavalry and Field Batteries.

Let us now examine briefly the type of horse employed in the ranks of the old Silladar Cavalry, or Local Horse as they were sometimes called. As is well known, James Skinner may be regarded as the father of the Silladar Native Cavalry system; his two regiments, the 1st and 4th Local Horse, now the 1st and 3rd Skinner's Horse, being amongst the first to be raised for the Company's service in India. He early recognised the value of admitting mares into his regiments, realizing how greatly their exclusion from Regular regiments limited the available sources of supply. Accordingly, both horses and mares were to be found in the ranks of his Corps, in consequence of which his horses were on the whole of a larger and better stamp than was the case in other regiments. Mares being less in demand than horses were considerably cheaper, a good mare costing no more than an indifferent horse. In fact in the North-West Provinces, a fine large mare could be purchased for from Rs. 150 to Rs. 200, whereas horses of equal size and strength would cost upwards of Rs. 300. It may be wondered why, when in regiments of Regular Cavalry a mixture of horses and mares was found to be unsatisfactory, the same objections did not apply to Silladar Cavalry Regiments. The answer to this question, as put forward by Skinner and other Commanding Officers who had tried the experiment, was:— "In the Irregular Service our horses are not so highly groomed or fed, they are also much more under the control of their riders from having severe bits and their heads tied down by standing martingales."

It must be remembered that in those days a Silladar

either brought his own horse with him on enlistment or else formed one of the numerous company of Bargirs which every Native Officer and most British Officers maintained. The Bargir system was first officially recognised about the year 1815, the numbers then allowed to the various ranks being practically unlimited. Abuses, however, crept in, and in General Orders of 23rd September 1819 it was announced the indulgence would be withdrawn with effect from 1st January 1821. Before this Order came into force, however, a further Order was issued on 11th December 1820, which sanctioned a modified allowance of Bargirs, as follows :— To each Risaldar and Ressaidar, 3 : to each Naib-Risaldar and Jemadar, 2 : to each Kote Dafadar or Dafadar, 1. By G. O. C. C. of 11th November 1824 these numbers were increased to 10, 5, and 2, respectively. Irregular Regiments, therefore, had no dealings with the Stud Department, although they were permitted to purchase from Depots, at Rs. 300, any animal which had been rejected as unsuitable for all other branches of the service. The only assistance they obtained from Government was the sum of Rs. 400 for each horse purchased by the Commanding Officer for the two Galloper guns, and Rs. 105 each for 4 camels for the carriage of ammunition for these guns. These Gallopers were first issued to Skinner's Corps in 1809, and were withdrawn in 1819.

The State also granted compensation at the rate of Rs. 125 for each horse killed or disabled on service, irrespective of the age of the animal. This sum, although most illiberal, was not increased during the first half of the 19th century in spite of frequent representations by Commanding Officers, who pointed out that it were better to encourage rather than diminish the chances of men taking their horses within range of the enemies' fire. It may here be remarked that this supposed dread of risking their horses under fire was a charge frequently levelled in the press at this period by officers of regular regiments against the Local Horse. Possibly there may have been, in isolated instances, a substratum of truth in

this assertion, seeing that a man who lost his horse, lost his livelihood if unable to find the money to replace it.

This brings us to the subject of Chanda Funds. Although properly constituted and officially sanctioned Horse Funds, such as we now know them, were not in existence prior to 1850, many Corps of Irregular Cavalry possessed some sort of fund the object of which was to assist owners in replacing their horses. Skinner was the first to inaugurate the system by establishing in his Corps a fund towards which all ranks subscribed a small monthly sum, entitling each man to receive a part of the value of his horse, should it be lost. In the majority of regiments, however, the value of all horses which had died, or been cast during the previous month was divided equally amongst all ranks, one share being deducted from the pay of everybody.

G. O. G. G. of 13th September 1822 directed that on the 1st of January of each year the horses of Irregular Corps were to be inspected by a Committee, to be formed under the orders of the Divisional Commander, who were to cast all horses considered as unfit for further duty. It was further directed that, "Whenever a horse is condemned as unfit for the service, his rider shall be indulged by a continuance in the Corps for three months, on one-third of the rate of his pay, at the expiration of which period, if he shall not have remounted himself to the satisfaction of the Officer Commanding the Corps, he is to be discharged from the service."

As stated above, the two regiments of Skinner's horse, 1st and 4th Irregular Cavalry, were mounted on a mixture of horses and mares, as also was the 5th; the 6th was for some time mounted on a mixture but subsequently excluded mares; the remainder were mounted on horses only. Judging from contemporary evidence, there is no doubt that the horses of the Silladar Cavalry were, on the whole, greatly inferior to those of the Bengal Light Cavalry; whilst the men, as a class, were decidedly superior.

A General Order, dated 20th May 1847, directed a further

experiment to be made in the use of geldings in Native Cavalry. It will be remembered that this had been tried between 1817 and 1820, and abandoned as unsatisfactory during the latter year. It was ordered that the 11th Light Cavalry, a Corps which had been raised only five years previously, "be mounted entirely on geldings, in order that the long contested question of their inferiority or otherwise to entire horses may be set at rest." Two years later it was ordered that, "the experiment in the 11th Light Cavalry having proved satisfactory, the 10th Light Cavalry is also to be mounted on geldings." The above orders, of course, did not affect the Irregular Cavalry, in which branch of the service geldings were not introduced until a much later period—probably not until their reconstitution after the Mutiny.

In the regular mounted branch, however, the change, once inaugurated, soon became universal and was entirely completed before the Mutiny. It is only to be wondered at that after the experiences of the 1st and 2nd Sikh Wars the experiment was not introduced sooner. The credit for effecting this change is due principally to Sir Walter Gilbert who drew up a long report on the subject, embodying therein the opinions of various senior officers of Cavalry and Artillery. The Commander of a Horse Brigade wrote thus, "The very noisy disposition of the entire horse renders him almost useless upon outpost duty at night, and serves more to point out your own position than to be a look-out upon the enemy. This I found everywhere, but more particularly on the night of the 21st December (1845), where, after taking up my position in rear of your division, the horses of my brigade became so noisy and troublesome that they plainly pointed out our position to the enemy, who immediately opened upon us, and I was obliged, with the Commander-in-Chief's permission, to change my ground during the night. The difficulty is great of securing the entire horse when in the field, and the consequent privation of rest to the rider during short halts or night bivouacs in presence of an enemy. This I found during the

night of the 21st December, where the Brigade, when dismounted, were for the most part obliged to stand to their horses' heads, and were consequently totally deprived of rest. The difficulty of unbitting the entire horses to feed under similar circumstances must be added. Witness Feroshur, where for this and other causes the horses of my brigade were without food or water for forty-eight hours." Sir Walter Gilbert also cites in his report the case of a Sergeant of Light Dragoons, a man of magnificent physique, who got mixed with the enemy in a charge. The horse he was riding, one of those vicious brutes so common in the ranks at that period, attacked an enemy's horse. The biting, kicking, and fighting which ensued prevented the sergeant, who was a powerful swordsman, from using his weapon, and being unable either to defend himself or to manage his horse, he had both his arms cut off.

Lieutenant-General Sir Walter Gilbert, Bart., had commanded a Division in both the Sikh wars, and, although an Infantry man, had devoted much attention to horse racing and breeding in India, being himself the finest cross-country rider of his day. To Sir W. Gilbert, when Military Member of Council in 1852-3, we were indebted for regular supplies of Australian horses, although intermittent supplies had been received from the Cape and from Australia for some years previously.

In the year 1837, sixty-five horses were purchased at the Cape at £ 25 each for the 4th Light Dragoons. These had cost Government by the time they reached the regiment between Rs. 450 and 500—exactly half of what it was estimated that a stud horse had cost by the time it joined its regiment. In 1839 the 4th Light Dragoons took part in the 1st Afghan war, when it was admitted by all who saw them that these Cape horses stood the march to Cabul better than any other class of horse. Thirty-one of them were subsequently made over to the 14th Light Dragoons in 1841. Out of the 85 horses, 10 were selected as chargers by Officers. As showing

how unpopular the Stud-bred had become, it is interesting to note that in 1848, out of the whole of the Sirhind Division, only one officer possessed a charger bred at the stud; all the remainder keeping either Arabs or Colonials.

At this period the average price of the various classes of remounts was approximately as follows, bearing in mind that the value of the rupee was nearly two shillings :—

Stud-breds	...	...	1,000
Arabs, landed at Bombay,	...	...	500
South African, landed at Calcutta,	...	...	470
New South Wales, do. do.	...	...	430
Northern (at Peshawar) for H. A. and Light Cavalry	...	...	370
Northern (at Peshawar) for Light Field Batteries	...	...	260
Candaharies (at Sukkur) for Batteries	...	...	300
Country-breds (at Multan) for do.	...	...	216

The average number of horses annually required for the mounted service was estimated at 1,200, *viz*:—

13 Troops of Horse Artillery 200; 12 Field Batteries—100; 3 Regiments of Dragoons—150; 10 Regiments Light Cavalry—750. Of the above requirements probably 65 per cent. were supplied by the Stud Department, 20 per cent from the North-West Provinces, 10 per cent from Australia, and 5 per cent from South Africa.

In the Dragoons and Light Cavalry the Arab was considered superior to all other classes, with the possible exception of some of the Colonials. For draught work in the Artillery the Colonials came first, closely followed by horses from Persia, Turkistan, Herat, Candahar and Cabul.

In the year 1844 an officer and a Veterinary Surgeon of the Stud Department were sent on special duty to New South Wales in order to examine and report on the horses of the Colony. From 1846 onwards a few Waler horses were imported from New South Wales, but it was not until 1853, as already stated, that regular supplies were received from Australia.

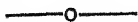
In conclusion, a brief extract from Sir Walter Gilbert's Report, dated Lahore, 12th September 1850, is appended.

"That there is a great difference between the horses bred in the neighbouring districts, and occasionally even between those bred by different owners in the same district, is well known to those who have given attention to the subject; and of the New South Wales horses, those from Van Diemen's Land, South Eastern and Western Australia (the latter possessing the very great advantage of being the nearest to and having the easiest communication with India of any of the Australian districts) may be considered the best, as regards both breeding and docility; and those from Sidney the least suited to military purposes, from the mares and colts in that district being allowed to run wild in the bush, which renders the colts difficult to break in and uncertain in pedigree."

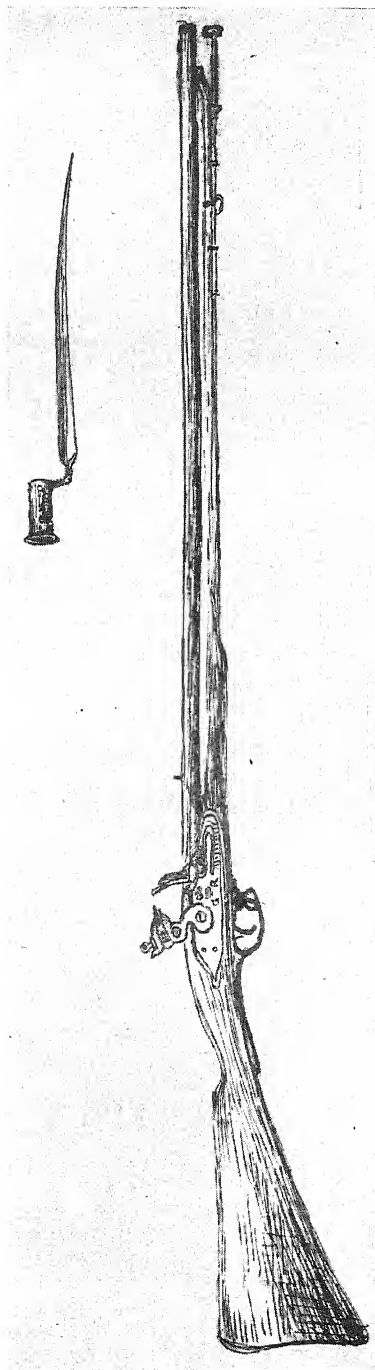
NOTES ON THE HAND FIRE-ARMS OF WATERLOO,

By

CAPTAIN F. R. LEE, UPPER BURMA VOLUNTEER RIFLES.



Three years before the battle of Blenheim the Commander-in-Chief and the Master of Ordnance met in the Council Chamber at Whitehall and decided that the old matchlock musquet must be withdrawn. Since the Civil Wars it had been the main weapon of the British Army. It weighed 20 lbs. and was of 12 smooth bore with a barrel 48 inches long. Ignition was effected with a match made of tow inserted in the jaws of the serpentine. This match had first to be ignited and then the pull of the trigger caused it to fall upon the powder in the pan. But the whole operation was slow and in wind or rain very uncertain. Of an early type the snaphaunce or lint ignited gun had long been in use in England and on the Continent mainly as a sporting weapon. In the reign of King Charles I. the gun makers' contracts distinguish between matchlocks, snaphaunces and firelocks. But abroad well manufactured flints appear to have been so hard to obtain that even the superior quickness in loading of the fusil (Fr: fucile, a flint) was not held to compensate for the uncertainty of ignition due to this cause. This at least is the view taken by Gaya in his "*Traite des Armes*" published in 1678. "On pent tirer plus justement avec le fusil, qu'avec le mosquet mais les fusils sont plus sujets a'manquer que les mousquets par le defant des pierres et des ressorts." In the XVII and XVIII centuries a regular supply of well chipped flints was as important to the army as its need for cordite to-day. Brandon in Suffolk is the seat of the flint knapping industry. There the manufacture of gun flints has succeeded without a break to the manufacture of flint implements by Neolithic Man, and the making of "strike a lights" and flints for wheellock musquets to the present century. Gun flints



*Blocks by
King Halpine Co.*

Brown Bess (Sketch).

Kuntaline Press, Calcutta.

are still made for the African and South American markets and thousands of sets of flint and steel have been supplied to our troops in the trenches during the present war. So a supply of flints being assured the matchlock went out and the flintlock was put in the hands of British soldiers. At first the 42 inch barrel was shining bright, and not until 1750 when the barrel was shortened by two inches, the powder charge reduced from 124 grs. to 70 grs. and the barrel browned, could it be said that Brown Bess had fairly started its lengthy career. As the regular weapon of British troops it survived until 1845 well into Queen Victoria's reign, playing a part in the troubles with Afghanistan and in both the Sikh wars. Years after the annexation of the Punjab at the time of Lord Lytton's Durbar the huge piles of gun flints stored by Ranjit Singh were cast out of the arsenal and used as road metal. Even as late as the Crimean War owing to the exhaustion of the supply of Minie and Brunswick rifles and to a strike of some British workmen who choose an inopportune moment to demand higher wages, Brown Bess muskets hastily converted into detonators were served out to the troops. In 1905 there still survived in Birmingham a few workmen who helped to make these antique weapons in the middle "forties" of the last century. Thus romantically is the dead past of Blenheim, through the "great and gallant" days of the Peninsular and Waterloo, linked with the living present. The accompanying sketch gives an idea of the appearance of Brown Bess. It discharged a ball about 13 calibre, rather smaller than the actual bore. Thus even when fouled after long continued firing the ball could be rammed home with comparative ease. There was a barley corn fore-sight and ungraduated back-sight. But with all its merits of simplicity and handiness it was not a weapon of precision and critics spoke irreverently of its performances. The disaster in Afghanistan proved that the Pathan armed with his long barrelled jezail held the tactical advantage over our troops armed with Brown Bess. This had to be put right, but military opinion in those days

was rather behind the times, for an inventor who offered a long range rifle for use in the Indian Army was told by the authorities at Whitehall, "that a weapon suitable for British troops was good enough for the army in India." In 1841, however, a Commission of Royal Engineers was appointed to look into these matters. They found that at 150 yards a target 12 x 6 ft. could be hit three times out of four, but that at 250 yards a target twice these dimensions could not be hit at all. These results justified the opinion of Sir Edward Hamley who said that he would back 5,000 English archers armed with long-bows, against five times their number of men armed with Brown Bess, for the archer could discharge about six arrows while the musquet got rid of one ball. Moreover, the arrow was much more dangerous than the bullet beyond 150 yards and at all ranges far more demoralising to horses. In order to make some experiments in the almost forgotten art of flint ignition, I had the lock of a Brown Bess musket mounted by a native workman on to a stock and a short piece of an old rifle barrel. From the photograph of this it will be seen how simply and strongly the lock is made. On the lock-plate of this actual specimen are inscribed Tower and the initials W. R. *i. e.*, William IV with the Crown between them and the date 1835. This is the latest pattern, having the feather spring inside the lock-plate and a safety catch, engaging in the back of the hammer when at half-cock. In the earlier pattern used at Waterloo the spring was outside and there was no safety catch. The latest mark is practically proof and unbreakable as well as less likely than older types to be put out of action by rain. One of the strongest recommendations of the utility and general soundness of Brown Bess is the fact that many of these weapons are still in daily use in out of the way places round the frontier of India. I have seen one bearing the date 1759, the year of the capture of Quebec by Wolfe; it was working as smoothly as on the day it left the factory though the barrel was so honeycombed, that probably any stronger

explosive than home made powder would have burst it. The barrel of Brown Bess has no claims to accuracy with ball but as a duck gun it is first rate. Loaded with No. 1 shot 104 pellets to the ounce and three drams of Curtis and Harvey's 3 F. Best Black Powder it will kill wild duck dead at 75 yards. When on the stalk with a flint lock for these quick sighted birds it is well to aim above them, for they rise to the flash and the shot then catches them about a foot above water. With the aforesaid home made flint lock carbine and a supply of flints from Suffolk, I have fired several hundred shots to ascertain what degree of certainty of ignition can be depended on. At the outset let me say that owing to a mistake the flints used were "pistol flints" not "musket flints". Even with such I found that ten consecutive shots without a missfire is a fair average. Probably with musket flints having a longer striking edge the average would work out higher. To get the best results much observation and practice are required. For example there is a fixed ratio only to be found by experiment between the strength of the cock and the hammer. If the main spring be too strong in proportion to that of the hammer the cock is often broken for want of resistance and if the hammer or feather spring be too stiff it becomes difficult to throw it even with a strong main spring. The best flints are the most transparent black ones. For the Brown Bess the edge of the flint should protrude about half an inch. Put a piece of thick leather round the rear of the flint and then screw it in by gradually tightening the cock-screw. To make a flint strike lower, reverse the usual way of putting it in, to make it strike higher, put under it either a piece of very thick leather or a wedge of soft bamboo. Note that the piece of steel against which the flint falls was called the "hammer" this is apt now to confuse for in modern parlance the cock is called the hammer. A flint having four sides can be turned and used till each edge is worn out. Often after a miss fire a slight shifting of the edge with the finger will cause ignition without having to take out or replace

the flint. To load rapidly, fine powder should be used. This obviates the need of priming, for sufficient of the fine grains come through the flash hole into the pan, to prime the gun without further handling. Extra quickness is also obtained by doing up the powder and shot or ball in a cartridge of stout paper the end of which is pulled off before putting the charge into the barrel. If these directions are followed at least seven aimed shots may be discharged in a minute which is much quicker than a percussion gun can be fired. In the pages of a rare old drill book the precursor of our red book, may be read the firing regulations which were used on that famous June morning a century ago. They are very precise, but would hardly suit the less leisurely warfare of the present day.

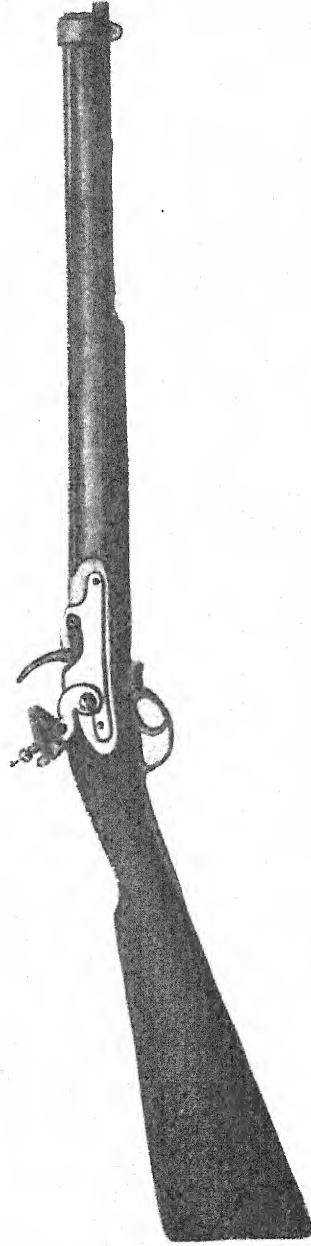
- | | |
|-------------------------|----------------|
| 1. Half cock firelocks. | 6. Open pans. |
| 2. Handle cartridge. | 7. Prime. |
| 3. Draw ramrod. | 8. Make ready. |
| 4. Ramdown cartridge. | 9. Present. |
| 5. Return ramrod. | 10. Fire. |

The French infantry at this time used a musquet with a barrel 40 inches long calibre 0·703 inches with a foresight (guidon) on the muzzle band. France being at war with so many of her neighbours, great difficulty was felt in getting a sufficient supply of walnut wood for stocks. Thus it is usual to see stamped on the stocks of the Revolutionary period and first Empire musquets the names of various other kinds of woods employed for this purpose. Chataignier, orme, frene, hetre, peuplier, erable, chene etc.

Pistols.

In the English and French cavalry, holster pistols were carried. The English pattern was of musquet bore calibre 0·753 inches, length of barrel 9 inches, weight 3·34 lbs. firing 3·5 drachms of powder. The barrel of the French pistol was 8 inches long and the bore 0·70 inches.

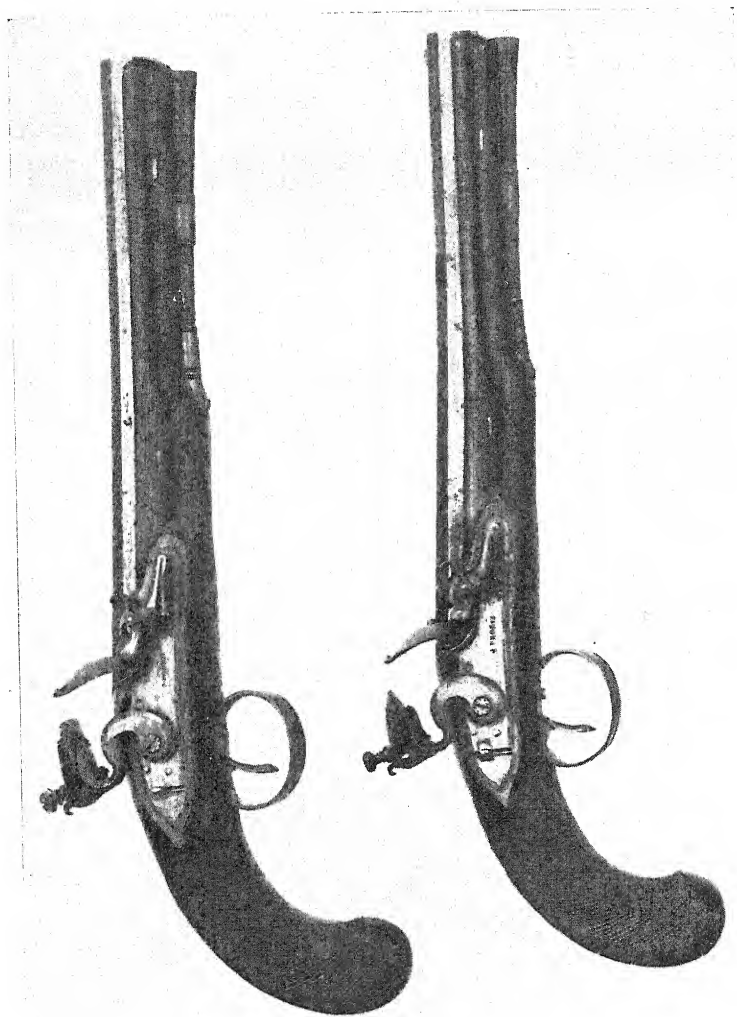
Officers were tied to no regulation type of pistol. Each man carried the pistol or pair of pistols that suited his taste.



*Made by
King Halstone Co.*

Brown Bess Lock.

Kauldine Press, Calcutta.



*Made by
King Hallbone Co.*

General Sir Thomas Picton's Pistols.

Kuntaline Press, Calcutta.

By the courtesy of the owner I am permitted here to give a photograph of the pistols of Sir Thomas Picton, the gallant general who was killed at the head of his men in the Great Battle. They are preserved at Old Sleningford Hall, near Ripon and there they have been since a month or two after Waterloo. Probin is the maker and though plain they are beautiful examples of the armourers art and typical of the weapons carried by the officers of the day. Within the last few months, one of Wellington's pistols very appropriately has been presented to Field Marshall Sir John French ; it is similar to those of General Picton, but an inch longer in the barrel.

TRANSLATIONS FROM RUSSIAN NEWSPAPERS.

“*Novoe Vremya*.”

11th April 1915.

There has lately been started in Rumania, under the editorship of the well-known Germanophil, Peter Karp, a new newspaper, the *Moldavia*, with the avowed object of combating the influence of the Triple Entente, and of persuading public opinion that, “the first step towards national union must be the recovery of Bessarabia.” According to the *Moldavia*, “the war has already cost us dear. Owing to the necessity of voting large sums for the army, our national debt already amounts to 400 million* (£ 16,000,000) while this year’s deficit is probably another 600 million* (£ 24,000,000) Rumania must make up her mind, therefore, to take one side or the other, through whose help she may, after the war, be enabled to recover from her present difficulties.” Mr. Karp considers that Rumania’s foreign policy must be guided by commercial interests, which require the acquisition by her of all the mouths of the Danube and a guarantee of free passage through the Dardanelles. With the first object, Bessarabia must be recovered, and with the second, Russia must be prevented from establishing herself on the Bosphorous.

It is remarkable that a politician of the experience and reputation of Mr. Karp should allow himself to use some naive arguments. The Dardanelles question is especially obvious. During the last three years the straits have already been closed three times, although they are not yet in Russia’s hands.

It is to be expected, that when they are, and when the activity of the Young Turk party is at last got rid of, the state of affairs on the Bosphorus and Dardanelles will be far more stable and peaceful than hitherto. Besides, Russia maintains in the Black Sea a fleet amply sufficient to blockade the whole coast of Rumania, so that whether, Russia were

* No currency is mentioned, but the Gold Leo is presumably meant.

"Наше Гремя."

mistress of the straits, or not, she could, in the event of a conflict, put an immediate stop to all Rumanian sea commerce.

The question of Bessarabia is no less simple. In the very unlikely event of Rumania defeating Russia, what would be her position afterwards? When a comparatively weak nation is next-door neighbour to the greatest empire on earth, no greater misfortune could befall her than to gain an increase of territory at the expense of her mighty rival.

10th May 1915.

The clearer become Italy's preparations to take part in the war, the higher rises the excitement of public opinion in Bukharest. For instance, some days ago, the Conservative party, which is largely made up of Austro-and Germanophiles, held a noisy meeting of their executive committee. The late leader of the Conservative Party, Peter Karp, did not put in an appearance; he remained in Yassi to continue the publication of his German and Austrian-subsidized newspaper, the *Moldavia*, in which he urges the necessity of Rumania intervening in the war to recover Bessarabia from Russia, rather than Transylvania from Austria. His place at the head of the committee was taken by the late minister, Margiloman, who has for the last few years been the actual leader of the Conservative Party. After a number of passionate speeches and debates, Margiloman obtained only one supporter, the rest of the committee voting for immediate war with Austria.

There is no doubt that this decision will not be without influence on the Liberals, who are at present in power, and should take warning from the history of the opposing party, which, from being strong and united, split in two owing to the exclusion from its ranks of the patriot Takie-Vioznesko and his conservative democrats. At the present time, there is no doubt that the majority of conservatives are supporters of the Conservative-Democratic party. Among the Rumanian liberals, there are two shades of opinion; one side urges Rumania to wait for the moment when Transylvania may be

"Novoe Vremya."

captured, "with the bare hands;" the other side proclaims its strict neutrality and inclines to the teachings of Peter Karp. But changes have already begun to be noticeable in the liberal policy, as was evidenced by the huge mass meeting lately held in Galatz, where representatives of the different parties all spoke in favour of immediate intervention in the war on the day that Italy should cross the frontier of Trentino.

The chief reason for this change of view among members of both parties was the news that reached Bukharest after the second occupation of Bukovina by the Austrians. The latter indulged in a perfect orgy of hanging, not only in Russian but in Rumanian Bukovina, their energies being directed mainly against the priests of the (Russian) Orthodox Church, whom they suspected of sympathy with Russia. But in Bukovina there are very few Russian priests indeed, and some Russian parishes even are looked after by Rumanian priests, so that the latter naturally provided most of the victims. This has created a very bad impression in Rumania, where the mass of the people is very much attached to the Orthodox Church of its fore-fathers.

13th May 1915.

Our Sofia correspondent has obtained from an absolutely trustworthy source the following details of the new agreement between Bulgaria and Turkey.

As is well known, about March last, M. Radoslaf made proposals to the Porte for the revision of the 1913 treaty and for the cession to Bulgaria of parts of Thrace along the Midia-Enos line. These proposals were in principle accepted by Turkey, acting under pressure, or rather, under orders from the Kaiser. It is rumoured that the new agreement binds Bulgaria not only to a neutrality friendly to Turkey, but to active co-operation against Servia. I am informed that the preliminary step towards official action is to be an organized revolt of the Turkish and of part of the Bulgarian inhabitants of the strip

"*Добroe Утремя.*"

of territory along the Serbo-Bulgarian frontier, and it is proposed to arm the rebels with the Turkish Mausers siezed by Bulgaria at the time of the last Balkan war. The revolt is being organized by the Macedonian Revolutionary Committee on Bulgaria's side, and on the Turkish side by the central committee of National Defence, with a specially formed committee at Adrianople, under the direction of the Vali. The details are being worked out by the two parties in conjunction.

Thus the Turks count on being able to stir up a revolt along the Servian frontier and to force Bulgaria into an attack on Servia from her undefended Eastern side. In other words, Turkey hopes to play the same trick on Bulgaria, as Germany played on her (Turkey) in October last.

Taken in conjunction with the above, the two following facts have a special importance.

On the 3rd April there arrived in Constantinople the Director of the Bulgarian railways, M. Morfof. During his stay of three days he held daily conferences with the Director of the Eastern Railways (the Turkish Railways in Europe) Muller, with the Turkish Chief Director of Supply on von der Goltz's staff, von Bartich. It is characteristic that after each days' conference von Bartich left by the five o'clock train for San-Stephano, where are von der Goltz's headquarters.

It is asserted that, at these conferences, plans were worked out for the combined employment of the rolling stock of the Bulgarian and Turkish railways "in case of compelling necessity".

It is said, by the way, that the total rolling stock of the Eastern Railways amounts to 1500 goods and passenger vehicles, of which 9 engines, 250 goods and passenger wagons have already been sent to Dedeagatch at Morfof's request.

The second important fact, to which I referred above, concerns the transit of goods through Bulgaria. Turkey has commenced exporting considerable quantities of mutton, eggs

"Dobroe Uremya."

and wool for Germany and on the 8th April 500 tons of copper passed through. On the 9th April, there arrived in Turkey 65 wagons purporting to be loaded with Red Cross equipment. Of these, 26 wagons stopped at Adrianople and Khadyemkey, the latter being an important military centre with very large stores of ammunition; the remaining 39 wagons went on to Siredji in Stamboul. All these wagons were of the Bulgarian type, of 15 tons capacity, and each was carefully sealed up with three leaden seals, stamped with the word Slivengrad. It need hardly be said that they contained practically no Red Cross equipment; although it is impossible to obtain exact details of their contents, it is well known that Germany has sent rifles, machine guns, barrels of smokeless powder, shells and 24 guns of various calibres.

The systematic way in which the Bulgarian Government allows military stores to pass through into Turkey proves that this cannot be a question of mere commercial profits. Unless M. Radoslaf were firmly convinced of Turkey's friendliness he would not allow passage to military stores, which might, one fine day, be used against Bulgaria herself.

27th May 1915.

In the last number of the "Neue Freie Presse" there appears a long telegram from Sofia, giving the substance of conversations held with four leading Bulgarian politicians—Radoslaf, the President of the Council of Ministers, Tonchief, the Finance Minister, Momchilof, the Vice-President of the National Assembly, and the well-known Gennadief.

It would be too much of an honour to say that their utterances will cause indignation in Russia, but assuredly every Slav will blush for shame to find what aphorisms pass in Sofia for the height of political wisdom.

M. Momchilof, who frankly confesses that his only source of information about the war is the German and Austrian communiques, has not the slightest doubt that these two nations will be victorious, and states that both the honour and

"Авось Премья."

tradition of Bulgaria demand that she be on the side of the central European powers. Austria is Bulgaria's dear friend; but in spite of their mutual sympathy, Bulgaria cannot do more than observe a loyal neutrality. "Unfortunately the time for intervention in the war has not yet come".

If Momchilof speaks with the dulled intellect of a man hypnotized by the prestige of the German Army, in the utterances of the Finance Minister we see a more subtle blending of calculation and servile complaisance. "We have already received two instalments of the loan concluded by us in Germany. We hope that after the war the markets of Austro-Hungary and Germany will still be open to us. It is to be hoped also that the two allies will shew a proper appreciation of Bulgaria's services, and that the end of the War will give her some increase of territory".

Radoslaf, for his part, only repeats the same old formulas; "Bulgaria is exhausted by two wars; her Government cannot therefore embark on fresh adventures without the assurance of a written treaty".

It may be remarked that Bulgaria's two wars lasted about six months in all; although, therefore, she could plead exhaustion a year ago, it is ridiculous to do so now, when all the great powers have been engaged in an unheard of struggle for the last ten months, and when all are exhausted. What it comes to is, that Bulgaria will not believe the assurances of the Triple Entente, unless they are written down in black and white. For the last ten months she has repeated the same refrain, "You have cheated me once before and you will cheat me again, I do not trust you".

One can imagine what will be the feelings of the allied diplomats towards Bulgaria, when they meet in congress to decide the fate of Europe. The French papers are continually inveighing against Bulgaria's short-sighted and irrational policy, while in Russia, even the Slav Charitable Society has renounced all sympathy and all connection with her. Bulgaria accuses Russia of desiring her help to serve her own selfish national

"Новой Времени."

ends, but the warning we give to her is summed up in a paradox; "Bulgaria's intervention in the war is necessary not for Russia, but for Bulgaria herself".

17th June 1915.

At the present moment, when our gallant troops are being subjected to the desperate attacks of the greater part of Germany's forces and of the whole armed strength of Austria-Hungary, public opinion in Russia is beginning to wonder why our allies do not make a decisive attack on Germany's western front. They themselves confess that the German Staff has already transferred a considerable number of troops from the Western to the Eastern theatre of operations, so that the present would seem to be a most favourable moment for a general advance. It would, moreover, force Germany to divert part of her forces from our front, and would thus repay us in kind for the service we rendered our allies in August last by our advance into East Prussia, at a time when France was being submerged under the flood of the German invasion. Besides this, the present strength of our allies is fully equal to the development of the offensive on the grandest scale. French authorities place her first line strength at $2\frac{1}{2}$ millions, with over 2 millions more in second line. The British expeditionary force in France has, according to an official announcement in the House of Commons, reached a strength of 700,000 to 800,000 men. The Belgian army numbers 120,000 men. Thus there are about $3\frac{1}{2}$ million men in first line, with immense reserves in second line for the replacement of casualties.

For what then are our allies waiting? Why do they not fall on the enemy along the whole length of his western front and hurl him back to the Rhine or even beyond it? Can it be that the allied staffs do not correctly appreciate the present situation?

The answer to the last question is contained in the latest telegrams from France which give the French Government's point of view on the present situation. From these we see

"*Новой Времы.*"

that the allies quite understand the position of affairs and appreciate to the full the heroism of our armies.

The allies are, as a matter of fact, not idle, but they themselves confess that their activity is not sufficient to prevent the Germans from transferring considerable numbers of troops from west to east. Why should this be so? Why do they not take the offensive with all the huge forces at their command?

The answer is to be found in the general strategic situation obtaining in the western theatre. The whole German front, from the North Sea to the Swiss frontier, has been converted into one continuous defensive line, according to the most modern theories of fortification, and supported by an artillery capable of directing a tornado of fire on any given point. (We have ourselves just experienced in Galicia what the enemy's massed artillery fire means.) Against this line Joffre's armies, however strong they be, might hurl themselves in vain. The operations are at present, therefore, only preliminary and are merely preparing the way for the great blow, which will be struck when the allies command sufficient artillery to crush the enemy's opposition, and when Joffre considers that the moment for decisive action has come. We have frequently insisted on the intimate co-operation that exists between the operations of all the allies, not only theoretically, but practically, thanks to an uninterrupted interchange of opinion. General Joffre is only carrying into effect the general plan, decided on by all the allied commanders in conjunction.

We will preserve then the greatest tranquillity, realizing, as we do, the immense superiority in strength which the allies possess over their German foes. In such a mighty struggle as the present, in which armies are numbered in millions, and battle fronts extend for many thousand miles, some temporary reverses are unavoidable. But they cannot change the generally favourable course of the campaign.

*"Робот Нремга."**25th May 1915.*

It seems that "the British Yoke" is not only a myth of the past, but also to all appearances mythical as far as the future is concerned, since in the very nature of things it is impossible for a world "yoke" to be established by sea power. Command of the sea denotes only command of the sea and not mastery of continents. You will say that Britain is mistress not only of the oceans but also of a quarter of the earth. True—but one must inquire a little more closely in what this mastery consists—that is, how far does it resemble a "yoke," the shackle of the slave, about which Bernhardt talks. I think there is no similarity. Ask Australia does she feel that she is under the "yoke" of Britain. Ask the same question of Canada, of the African Colonies, even of India, inquire about the slavery which has provoked so many indignant tears. In the present war, Canadians and Australians. South-Africans and Indians are fighting under the standard of "old merry England." And the fact is surely significant. It seems to denote the existence of a kind of moral force which allows even the farthest lands to submit to British guidance, and even to value it. Is it long since the cruel war of Boer and Briton? And behold the Boers are now wresting for Britain the possessions of those very Germans on whose help they formerly relied. It cannot be gainsaid that in all British Colonies there are small groups of separatists who advocate complete separation from the Motherland. Nor is there any doubt that in Egypt and India there are patriotic parties dreaming of a national sovereignty. But as yet such advocacy and such dreams have found no support among the popular masses. The people are aware of what is necessary before all else—peace, order, justice, and the genius of organisation. What the Separatists can offer is unknown, but the Motherland has given to the British Colonies peace and order and justice and national organisation. Egyptian and Indian patriots dream of full independence for their Empires, but they know that there was a time when Egypt and India were indepen-

"Нобое Уремпа."

dent, and that precisely at that time were the peoples steeped in slavery and in anarchy, in tyranny and uncultured impotence. The so-called patriots know that their Empires are now in enjoyment of broad self-government and internal freedom such as never were possible under Mameluke or Great Mogul. They know that until the coming of Britain their countries were being driven to the last stage of exhaustion, as Persia is today,—and that it was only the arrival of their conquerors that gave to the Egyptian and to the Indian the canal, the rail-road, contemporary commerce and trade and with them the national wealth which increases not daily but hourly, notwithstanding the powerful hindrance of national and religious routine.

As nothing in this world is eternal, so the British Empire will one day come to an end, but experience shows that its end is not so imminent as the Germans might wish. The great Powers, who are supposed to be labouring under the world-wide yoke of Britain are marching shoulder to shoulder with her on an allied campaign against the "liberator."

15th June 1915.

The experience of the war, which has, to everybody's surprise, already lasted ten months, shows that the very nature of modern warfare—a warfare between nations in arms—has been very imperfectly understood and foreseen. So much so, that even the cunning-minded authors of the war, who have for tens of years been preparing for it, have already met with many unpleasant surprises.

Our readers would do well to consider carefully the special conditions of each theatre of operations, beginning with the Franco-German theatre. The nature of this front is very different, even from a mere physical point of view, from that on which our own troops are engaged. The British army, for instance, occupies only 50 kilometers (31 miles) of front; the Belgian, 13 kilometres (8 miles); the French, 300 Kilometres (187½ miles). Along the whole length of this, in our eyes, short front, there is concentrated an incredibly large

"Nobor Vremya."

number of troops. The English, if we reckon their strength at not less than 800,000 men, have more than 30 men per sajhen (13 men per yard). According to the *Matin*, France has, out of her population of $39\frac{1}{2}$ million, 2·7 million first line troops and half a million of recruits of the 1914-1915 category, that is to say a total of 3·2 million men. To this must be added her territorial army of 1·3 million. So that France has altogether with the colours about 4 million men, and in addition 650,000 who were called up later, in consequence of the resision of the lists of those excused from military service. Her first line troops give her about 1 brigade per kilometre (1,090 yards) along the whole length of her front.

France cannot be accused of unreadiness to make sacrifices. She has called to the colours 11 per cent of her total population. To appreciate this at its true value, we should remember that Russia would at the same figure have an army of about 20 million men.....The incredible difficulty of an advance on the western front is obvious, when it is remembered that the whole ground behind the advanced positions is seamed with trenches to a distance of 10 and even of 40 verst ($6\frac{1}{2}$ to 27 miles) and is also packed with guns, machine guns, mines, bomb-mortars, and lastly, poisonous gas apparatus. Some Russian readers are perhaps perplexed when they read telegrams describing a trifling advance of some hundred metres, or of a struggle for two or three acres of ground; but they must remember that this is exactly what the fighting on the western front consists of. The numbers of killed and wounded are an eloquent tribute to the difficulties of the struggle.

The conditions on the Russian front are very different. Owing to the huge distances and to the extent of front occupied, there is more pliancy and mobility in the opposing sides, which still find scope for the manoeuvres of old times—for penetrating, outflanking, or enveloping movements, for pitched battles etc. This characteristic of the Eastern front is very marked, and explains the frequency of the German attacks. We for our part sometimes shew less elasticity of front than

Азове Укремъ.

the Germans, because, other things apart, it is more advantageous for us to retire than to advance. By retiring, we not only contract our own front but force the enemy on the other hand to occupy his front in less strength. In retiring, we abandon useless positions and a wasted country in order to take up stronger and better prepared positions in rear. In view of the enormous superiority of the enemy in men and in artillery, an active retirement is enjoined on us by mere calculation of numbers. We are glad to say that the information received during the last few days shews that we are capable not only of defending ourselves against the enemy's combined assaults, but of ourselves assuming on occasions a brilliant offensive.

22nd June 1915.

During the first few months of the war, all the neighbouring neutral Powers shewed such zeal in supplying Germany's requirements in food-stuffs that their governments were eventually compelled to step in and to forbid further exports, in order to protect against famine prices in their own countries. At the present time most of Germany's supplies, such as food-stuffs, metals, lubricating oils, cotton etc., come from America and pass through Rotterdam, which has been converted into a vast depot for the satisfying of Germany's needs. The openness with which this trade is conducted is astonishing. The cargoes are shipped in neutral bottoms and are consigned to neutral ports: they have, therefore, nothing to fear from the British fleet. As soon, however, as they arrive in Rotterdam, the mask is thrown off. The cargoes are transferred with feverish activity to trains, ready waiting to receive them and are run straight through to Germany, the whole operation being organized and supervised by the members of the local German consulate. The German ambassador at the Hague has even started an official agency for the registration of orders and purchases for the German Army, and to such good purpose that, according to the "Nieuwe Courant",

Наше Время.

in one week alone, 600 full train-loads of wheat passed through Holland to Germany, and returned, laden with coal for the Dutch factories, which are busy carrying out orders for the supply of the German armies.

We are far from laying all the blame for the above state of affairs on the Dutch Government, which loyally observes the strict terms of its neutrality. But the fact remains that it is mainly through Holland that Germany maintains her communications with the outside world and that her present neutrality is actually more harmful to us than would be an open declaration of war. At the present time, it is quite possible to determine with considerable exactitude the cargoes which, though nominally consigned to Dutch ports, are actually intended for the use of the German Government. It would be both just and legal to treat such cargoes, at the time of their inspection in English ports, with less consideration than obtains at present. This would not, it is true, stamp out the evil altogether but it would nevertheless considerably restrict its scope.

10th July 1915.

A diplomat, accredited to the court of Bukharest, gives us the following account of the present state of the negotiations between Rumania and both groups of opposed powers. In dealing with the Triple Entente, her claims have continually increased with the duration of the war. In September 1914 she asked for Transylvania and part of Bukovina. On the allies consenting to this, the premier, M. Bratiano, pointed out the extreme difficulty of her declaring war before February, in view of the opposition of the Court and the unpreparedness of the army. In February, however, he raised the question of wider territorial concessions in Bukovina and of new compensations in what is called the Temeshvar Banat, which lies north of the Danube over against Belgrade.

M. Bratiano's insistence on the question of Banat has given rise among the Entente diplomats to the conviction

Dobro Utrnya.

of Rumania's want of sincerity, especially in view of the fact that, with the retirement of our armies from Galicia, she has revived negotiations with the Austrian ambassador. It is true that M. Bratiano, acting obviously under pressure from the press and party resolutions, has practically put a stop to the trade in contraband with Turkey, but this was only after energetic warnings from the powers of the Triple Entente.

Rumania's position is the same as before. The Court and M. Bratiano are against a declaration of war, which the nation itself demands, and are at present considering the compensations promised by Austro-Hungary in return for her neutrality. These are—the revival of the Semigrad constitution, a Rumanian university at Cronstadt, control over the Austro-Hungarian authorities in Transylvania, and territorial concessions up to a line running to a distance of 100 kilometres (62 miles) beyond the Iron Gates.

Rumania has not yet given an official answer to the above proposals.

The leading article also deals with the question of Rumania, and characterizes the policy of M. Bratiano's government as a piece of sordid auctioneering.

"Public opinion in Rumania realizes full well that the whole future of the country is at stake, and indignantly demands that the present opportunity be not let slip, but that Rumania support her just claims by armed intervention in the war. But M. Bratiano's government has taken its country's national ideals down to the market-palace and is putting them up to auction."

This bargaining spirit bears witness, among other things, to the mistaken policy pursued by the diplomacy of the Quadruple Entente. It is not its place to haggle; sufficient, if it announce its weighed decisions and leave them to the interested parties either to accept or to reject.

The day is approaching when it shall be meted out to

Novoe Vremya.

all according to the measure of their efforts, their services, their mistakes or their crimes. Our ancient ties with the Rumanian people make us hope that on that day, Rumania will be found on the judge's bench and not in the accused's dock.

14th July 1915.

Some unusually interesting experiments have lately been carried out in connection with the adaptation of private factories to military purposes. For instance, it has been found that our numerous distilleries and spirit refineries, which were threatened with closure owing to the abolition of vodka, are, without any alteration, capable of producing benzol and even toluol, indispensable for the manufacture of the modern propellant.

The big soap manufactories are able to produce lubricating materials for the use of our artillery. The laboratories of our technical colleges are in a position to prepare medicines. In one district alone—that of Kief—it is reported that there are over a thousand factories, which would need little alteration to adapt them to the moulding and casting of shell. According to M. Mamontof, who is well-informed on industrial matters and speaks with a full sense of responsibility, we can, if we make use of all our factories “snow Germany under” with shell. After a certain amount of slackness and delay, we are beginning to put the mobilization of our industries “en train” and on a far larger scale than was expected. Besides the central war-industry committee, some dozens of local committees have already been formed.

The Moscow Stock Exchange has specially distinguished itself by the initiative it has shewn in this matter. During the course of its discussion on the necessity of having its own factory for the manufacture of munitions, a small, but very interesting fact came to light. One of its representatives announced that the big privately-owned factories are working with intolerable slackness, and that the great

Novoe Vremya.

majority of the shares in these factories are in German hands. The result is that whereas some factories are complaining of the enormous number of orders with which they say it is impossible to keep pace, in other factories work is at a standstill for weeks together. In view of the above, the Moscow Stock Exchange passed a unanimous resolution, urging Government to institute an enquiry into the full details of the working of all factories entrusted with government orders, and recommending that all those under German management be either confiscated by Government or handed over to the war-industry committee.

In order to prevent the question being lost sight of, the Moscow manufacturers have decided to create their own munition factories, all the profits of which will be applied to the needs of the army, and have opened a subscription list for the sum of ten million roubles (£ 1,055,550). The latest telegrams announce that the money has already been raised.

Russki Invalid.

14th April 1915.

One of the Dutch newspapers lately succeeded in obtaining the official figures of the casualties amongst officers in the German Army. These were as follows:—

Up to the 1st January

Killed	...	...	...	5,813
Severely wounded	...	...	...	7,655
Slightly wounded	...	...	...	11,202
Total				24,670

From 1st January to 28th February

Killed	...	...	...	1,688
Wounded	...	...	...	4,570
Total				6,258

This gives a total of 30,928 casualties since the beginning of the war, that is to say more than two-thirds of the whole

Russki Invalid.

establishment of all active and reserve units. The total of officers killed is made up as follows :—

Generals	...	...	...	26
Colonels	...	...	...	57
Majors	...	...	...	86
Captains	...	...	...	1,489
Lieutenants	...	...	...	1,773
2nd Lieutenants	...	...	...	4,068

The actual losses in officers are of course far higher owing to the number of wounded and sick.

The Dutch papers reckon that each German Infantry Regiment has lost on an average 22 officers killed and 34 wounded.

The cavalry has suffered more, and the artillery less, severely.

Thus the Infantry is 40 to 45% below its normal strength in officers, while it is being found especially difficult to make good these deficiencies owing to the caste organization which obtains in Germany.

In the opinion of Dutch experts, the present strength in officers will suffice for another three months of war, that is, if the losses are in proportion to those already incurred during the last seven months.

Pan-Islamism, Bukharest.

It is reported from Constantinople that the higher Circles in Turkey are much perturbed by the attitude of Afghanistan. Constantinople had reckoned that Afghanistan, being unfriendly to Britain, would threaten India, whereby the Indian troops would be tied to India and would not be available for the defence of Egypt. It has also been ascertained that the clerical leaders of the chief Afghan tribes have issued a proclamation in which it is stated that Turkey is waging war on political grounds, and the "Jihad" is denied. The leaders exhort the Afghans to remain loyal.

*Russki Invalid.**18th April 1915.*

The following details are given of the armament of the forts in the Dardanelles. They are taken from British and other trustworthy sources, and it is pointed out that, while they differ from accounts previously given in the "Russki Invalid", they are probably, considering their source, the most accurate of any at present available.

Ertogrul—Two 9·2 inch Guns.

Sedil Bahr—Six 13·2 inch Guns.

Orkhanieh—Two 9·2 inch Guns.

Kum Kaleh—Four 10·2 inch, and Two 6 inch Guns.

Roumeli-Mejidieh—Two 11 inch, Four 9·4 inch, and Five 3·4 inch.

Hamidieh 2nd—Two 14 inch.

Namazieh—One 11 inch, One 10·2 inch, Eleven 9·4 inch, Three 8·2 inch, and Three 6 inch Guns.

Hamidieh 1st—Two 14 inch, Seven 9·4 inch Guns.

Hamidieh 3rd—Two 14 inch, One 9·4 inch, One 8·2 inch, and Four 6 inch Guns.

There are other Forts and fortifications whose armament is not accurately known, named as under by the British Admiralty.

Suanders.

Dardanus.

Chaitklif.

Baikra.

(A map of the Dardanelles and Gallipoli accompanies the article).

Six weeks ago the Turks were in despair; not only were they without sufficient guns to arm the shore batteries, which had been repaired and newly constructed, but their supplies of munitions were running low. In the Council of State, over which the Sultan presides, voices were already raised against the uselessness of resistance in the Dardanelles and Bosphorous, and several officials, supported by the Sultan himself,

Russki Inbalid.

suggested the opening of peace negotiations. Our operations were going well and the end seemed close at hand.

Suddenly, at the wave of the Berlin magician's wand, everything changed; the Turks found themselves in possession of heavy guns and of ammunition for them; while their supply of mines was so largely increased that they were enabled to use floating mines against the allied fleets.

What had happened? Simply this, that in spite of the protests of our ambassadors and the solemn assurances of Messieurs Bratiano and Radoslaf, Rumania and later Bulgaria let through to Constantinople whole train loads of German munitions.

The secret sympathy of the Rumanian Government with Germany does not touch us so closely as the treachery of Bulgaria. Our brotherly relations with Rumania, for the freedom of whose Danubian provinces (Moldavia and Wallachia) our soldiers have fought and died, have for a long time been undermined by German influence, and it is only lately that the Rumanian nation has begun to turn to Russia as to her sometime deliverer and sincere well-wisher. At the present moment it is of especial importance that the nation's will should prevail. Great events are in progress: our mighty armies are already descending into the plains of Hungary; Austria is faced with the prospect of final defeat and may soon find that her interests demand the conclusion of an early and separate peace.

Surely the Rumanian Government does not imagine that terms of peace will include the cession of Transylvania to Rumania? What has she done that we should give her such generous compensation? We have, up to the present, received from her no support whatever, and have even failed to make her observe strict neutrality, which she has broken continually in allowing German munitions through to Turkey.

Rumania can atone for her sins only by the immediate occupation of Transylvania. This can be done at the present moment "with the bare hands" as the saying goes, with

Russki Invalid.

practically no bloodshed. In a few weeks (it may be in a few days only) we shall have no need whatever of Rumania's assistance. She will then have to deal direct with Austria, who by the conclusion of a separate peace will be in a position to refuse all her demands. In any case Rumania's pro-German sympathies do not affect us so intimately as the treachery of Bulgaria, or rather of her germanized Government. We do not know what the future will bring forth, but at the present moment there is no doubt that Bulgaria is embarked on a very dangerous course, for by her subservience to Germany she has worn out the patience, not only of the Great Powers, but of all the nations that surround her. What then, shall we do with Bulgaria? First and foremost powers of the Triple Entente must employ towards her dissolute Government the true language of diplomacy, backed up by the mighty power of the allied armies. Her Government and the whole nation must be made to understand clearly that, as the secret servant of Germany, she can count neither on compensation after the war, nor on the protection of her integrity, which, it is to be expected, will be threatened by some of her bitterly offended neighbours.

Russia is always ready to take Bulgaria's side, when her policy is directed by a Slav Government, but to do so for a Germanized government would be the height of folly.

11th June 1915.

Germany publishes lists of her losses in wounded, killed and missing, and this produces the impression that the Government and the General Staff do not fear the truth and do not consider that the losses sustained are capable of compromising the military power of the nation. The impression produced by this "modus operandi" of Germany gains all the more in effect, from the fact that all the other belligerent nations pursue a different course of action, and desist from publishing, for general information, statistics regarding their losses.

Russki Invalid.

In the first half of April the special office of the Prussian war ministry, in which are collected reports of the losses of the Prussian army, published lists 193-198, in which were given the names of about 33,000 killed, wounded and missing. These lists are composed in a characteristic manner: first of all they recount the losses on the Eastern front in January 1915, and then the losses in the Western theatre of war. The first information is limited to several paragraphs of names and is sometimes supplemented by reports of the losses in February. There is not so much delay in reporting the losses on the French front. In the latest gazettes, for instance, they have lists of the killed in March 1915 at Armentieres and La Bassee in the fighting against the British. If one recollects that the German army had to conduct a whole endless series of bloody engagements against the Russians in the first three months of this year, you cannot help being struck by the dearth of information concerning the losses for this actual period on the Russian front. The German Official Bureau is evidently avoiding using its limitless supply of evidence relating to casualties. One can judge of the truth of this by a reference to the statistics published by the Dutch Press. The Dutch papers affirm that the actual losses of the German army already exceed three millions, and that if, up to date, the official reports only account for half this number, this is explained by an effort to hide the truth. Actually, up to this time, only about one-third of the losses between January and March in the fighting against the Russians has been published, but of the losses in April and the casualties in the Carpathians there has not been a word. We shall not be far from the truth, write the papers, if we say that the real losses of the German army up to the end of April reach $3\frac{1}{2}$ to 4 million men, and if we consider all that has been said, it is easy to believe this.

Russki Invalid.

One of the correspondents of the "Rotterdam Chimes" has succeeded in becoming acquainted with the manner in which the Lists of casualties of the German army are composed. This work is now shrouded in the strictest secrecy, for the Germans have at last realised what valuable information or suggestions may be drawn by the enemy from the records of losses. It is only the fabrication of the lists which remains hidden under a veil of secrecy, the actual lists of casualties in a printed form remain as before, accessible to everyone.

This correspondent introduces himself into the war ministry by means of first-class recommendations from the military agents of neutral powers, under the excuse of making enquiries concerning the fate of his brother, a soldier in one of the infantry regiments employed against Russia. The enquirer visited several departments of the office, which is engaged in the receipt and manipulation of evidence concerning casualties, and then in the preparation of lists for the press.

At the first glance the correspondent was surprised at the small strength of the personnel of these offices in comparison with the extent of the department and the tremendous number of desks. According to the explanation of his guide, at first there used to be 160 officer and under-officer clerks in this department, but then at least three-quarters of the personnel were ordered off to the field army in order to fill up its cadres, and eventually there only remained 9 officers and 30 clerks. The latter will soon be probably ordered off to the army and will be replaced by women operators. The slightest weakening of the working personnel of this department, immediately has its effect on the success of the work in progress. At the given moment, for instance, material to the extent of several scores of lists has accumulated, each list containing on the average 6,000 names.

The composition demands great care and conscientious-

Russki Invalid.

ness, otherwise mistakes and repetitions would be unavoidable. The work is carried out on the card system in which one and the same card passes through a score of hands. The most simple is the composition of the lists of killed, for which purpose they have two "repertoires". Some idea of the size of the "repertoire" of the effectives, *i.e.* the actually living ranks of the army, may be obtained from the fact that in 1914-1915 nine million cards had to be composed for it. The "repertoire" of killed is at present considerably less, but according to the officer accompanying the correspondent, they have already had to include in it more than half a million cards. And this is not by any means the limit, for, on account of the lack of working personnel; they have not yet examined reports for the month of March and for a considerable portion of February and even for January 1915. No reports of the losses of the German forces in the Carpathians in November and December 1914 have as yet been received.

The composition of the lists of wounded is a matter of considerable difficulty, since the wounded often die a few days or weeks after the receipt of their wounds, and then there is the risk that their names may be mentioned twice both in the lists of wounded and in the lists of killed. At the present time the following rules govern the composition of the lists of wounded: in those lists are included only those wounded who have been sent back to their country from the front, and even then names are not included, if there is any room for doubt. This arrangement means that lists of wounded always appear two or three months late.

The most difficult and troublesome work of all is the composition of the lists of prisoners and missing. The officer who went round with the journalist, without any beating about the bush, admitted that the actual number of German prisoners, officers and men, must be at least twice as great as that admitted in the German official reports. This is due to the fact that there cannot really be any satisfactorily correct official

Russki Invalid.

evidence on this point.

Up to the 15th April this department has prepared for the Press, 225 lists containing 1,673,818 names. There is still sufficient unexamined material to compose 70-80 lists.

Rerb.

10th April 1915.

The leading article takes the following details from the Danish military journal "Militaert Tidsskrift".

The following German armies, under the command of Field Marshal von Hindenberg with General Ludendorf as his Chief of Staff, are operating on the Russian front:

General Below's army, consisting of the 1st and 2nd Corps, in Eastern Prussia.

General von Mackensen's army, consisting of the 3rd Reserve Corps, the 13th and 17th Army Corps, the 1st, 2nd and 25th Reserve Corps, the 5th Brigade of Guards, the 11th and 20th Corps, the 22nd Reserve Corps, the 3rd Division of Guards and the 5th Reserve Corps, hold a line along the left bank of the middle Vistula, from the mouth of Bzura river to Inowlodz on the Pilica.

General Veirosch's army, consisting of the 13th Reserve Corps, lines the river Nida and the Silesian frontier. It has been strengthened by Austrian Corps.

On the Western front there are the following--:

General Bezeler's army, consisting of the 23rd Reserve Corps, the 26th Reserve Corps, the 1st Division of Guards, the 27th Reserve Corps, and the 15th Army Corps, holds the district from Nieuport to the South of Ypres.

The Duke of Wurtemberg's army, consisting of the 2nd Bavarian Corps, the 19th, 7th and 4th Army Corps, and the 1st Bavarian Reserve Corps, is on a front from Ypres to the North of Arras.

The army of the Bavarian Crown Prince, consisting of the 4th Corps, the 2nd Division of Guards, the 23rd Reserve Division, the 1st Bavarian and the 21st Corps, extends to Roye.

Rch.

General Ruringen's army, consisting of the 18th Corps, the 9th Reserve Corps, the 9th Corps, and the 11th Reserve Corps, holds a line from Roye to the North of Soissons.

General Kluck's army consisting of the 4th Reserve Corps 3rd Corps, the 14th Reserve Division, and the 12th Corps, extends from Soissons to Berry-au-Bac.

General Bulow's army, consisting of the 10th Corps, the 13th Reserve Division, the 10th Reserve Corps, and the 12th and 19th Reserve Corps, is operating in the Rheims district.

General Einems army, consisting of the 8th and 18th Reserve Corps, and 16th Army Corps, extends to Argonne.

The German Crown Prince's army, consisting of the 6th and 16th Reserve Corps, the 5th Corps and the 3rd Bavarian Corps, is in the district of Verdun and St. Mihiel.

Finally General Falkenhausen's army, consisting principally of Landwehr troops, is in Alsace-Lorraine.

On the 1st February, the German army was composed of 35 Corps on the Western front, $13\frac{3}{4}$ Corps on the Eastern front, and $11\frac{1}{2}$ Corps in General Reserve. At the beginning of February, the 21st Corps was transferred from Roye to Eastern Prussia, while certain units were also taken from General Mackensen's army, several Reserve Corps also participated in Hindenberg's latest move in Eastern Prussia.

After countless changes the German army at the present may be accounted for as follows :—34 Corps on the Western front, $21\frac{1}{4}$ Corps on the Eastern front, 5 Corps in General Reserve, that is a total of $60\frac{1}{4}$ Corps, numbering about 3 million men. It can thus be seen that from the beginning of the war to the 1st February about 35 Reserve Corps were organised, besides the Landwehr Divisions subsequently formed.

The 5 Reserve Corps sent to the assistance of the Austrians in the Carpathians were presumably taken from the General Reserve, which thus ceases to exist.

Rech.

20th April 1915.

Again to-day in the General Staff communiques, they mention the capture of more and more thousands of prisoners. For March alone the number of prisoners captured by our troops in the Austrian theatre reaches the enormous figure of 200,000, including the garrison of Przemyśl. Besides this we know officially that for the first 5 months of the war, the number of Austrian prisoners was 225,000, and if we add to this figure the number of those prisoners taken in January and February, consisting of about 60,000 men, then the total arrived at, is nearly half a million men, lost by the Austro-Hungarian army, in prisoners of war without including killed, wounded and sick.

In order to picture to oneself even more clearly the enormous losses sustained by the Austrians during the 8½ months of the war, we note a few instances of casualties in past wars. Thus the obstinate seven month struggle between almost equal opponents, in 1870-1871 demanded considerable sacrifices on both sides, but they are not worth considering when you compare them with the present losses by the Austrians. According to the calculations of the military historian Ganonge, the French Army in the course of the whole war, lost altogether, including killed, wounded and prisoners 328,000 men, the Germans losing in officers, surgeons and officials 6,247 and in Rank and File 123,423.

In the present war the Germans have lost out of their Officer corps, as we are informed, on the evidence of figures published by the German Head Quarters, in killed, wounded and missing 31,276 men. During the last Russo-Turkish war the Turkish losses did not exceed 400,000 men. Then we enumerate the losses sustained by our army in the wars of the last century:—

Napoleonic War	1805	...	34,000
Persian War	1803—1813	...	6,000 killed
Napoleonic War	1806—1807	...	98,500

Translations from Russian Newspapers,

	Rech.		
Turkish War	1806—1812	...	54,000
Swedish War	1808—1809	...	15,750
Napoleonic War	1812	...	204,000
„ „	1813—1814	...	140,000
Persian War	1826—1828	...	9,500
Turkish War	1828—1829	...	56,000
Hungarian War	1848—1849	...	99,000
Eastern Campaign	1853—1856	...	340,000
Polish War	1830—1831	...	83,000
Turkish War	1877—1878	...	259,000
Turcoman War	1879—1881	...	4,000

Thus the losses of the Austrians in prisoners alone exceed the total losses sustained by the belligerents in all the wars of the past century, including their killed, wounded and prisoners.

The question of replacement of losses among the troops in time of war is always complicated and difficult of solution. The loss in the active army is generally so rapid, that its replacement, in the opinion of Professor Michnovich, must be commenced with the very first operations and must never cease. The replacement of losses in 1871 among the German field army, was carried out as follows:—

A unit which had lost ten per cent of its strength (sick, killed, wounded and prisoners) itself demanded through the Staff of its Corps, or directly from the temporary administration of the Corps area, the number of reinforcements which it required from the responsible area of supply. These reinforcements, under instructions from the Chief Inspector of depots on the Line of Communications, were transported by rail to the chief depot post and thence marched to their units. But after the great battles when the railways were busy with the transportation of wounded and prisoners, the movement of troops became more difficult and the reinforcing troops could not reach their units at all quickly.

Reh.

The Reserves supplied deficiencies by means of new enrolments. The dearth of Officers was adjusted by supply of Officers from Landwehr units.

In the beginning of March 1871, the German army dispatched into France altogether more than 2,000 Officers and 220,000 Rank and File and thus again brought the strength of the Field Army at that period, up to war strength.

At that time the Reserves of the Army consisted of 3,288 Officers and 204,684 Rank and File.

The reinforcements arrived with complete military equipment and the Cavalry, Artillery and Transport units brought Remounts with them. Clothing and Equipment for the whole Field Army was also kept up from German sources, the equipment for a whole corps being sent in bulk and complete in every respect, to the Central Equipping Depot. There were cases where the Army had recourse to private industries in the enemy's country. 116 guns were sent to make good deficiencies in the Artillery.

This system of reinforcing was recognised as quite suitable and in the present war it is used by both the Germans and their allies the Austrians. But the losses in the ranks of the Austrian army in this war have been so enormous that there can be no talk of their timely replacement. In the present war the filling up of the thinned ranks of the Carpathian army is rendered even more difficult by the necessity for reinforcing not only those portions of the line which lie directly in front of the main base, but also the flanks, whither there run from the centre very few railways, and over which movement is very tedious, owing to the fact that most of these lines are single and not adapted to the movement of troops.

All this leads one to think that latterly the Austrian armies have been greatly diminished numerically and cannot offer us any serious resistance. The season of bad roads and the temporary lull in serious operations are all to Austria's advantage.

Herby.

They will use this interval to replenish their depleted battalions, that is, if they have ready to hand a reserve of men, arms and equipment.

But the new Landsturm law which includes in this category all males between 18 and 50, points to the exhaustion of suitable fighting material. And this is quite to be understood. Austria wished to make a display of military power which was really beyond her strength. She intended out of 25 millions of male population to place under arms more than 12%, which was an absolute impossibility for the Austro-Hungarians. Such a strain she could not bear and she had to ask Germany to send the VIth Corps to her assistance. Whether Germany can give this Corps complete or with strength diminished by a certain amount, will be seen later. For the present, according to information, our reconnaissance has disclosed a feverish movement of troops in the rear of the Austrian armies operating in the Carpathians and located on the line of the River Dunajtsa.

It is evident that our enemy has determined to make a last concerted effort, even if only to check our pressure on Hungary. They fear this pressure no less than the Germans fear our advance in Silesia.

21st April 1915.

Omsk District Orders. March 30th (12th April) No. 127. The Commander-in-Chief has been pleased to deprive Austrian Officers who are prisoners of war, including officers of the Przemyśl garrison, of the privilege of wearing arms, by reason of the gross barbarity perpetrated by the Austrian army on the 21st March in the Zaleschikov district on a gallant soldier of the Russian army, whose tongue the Austrians cut out for the reason that he refused to disclose to the enemy information of military importance. It is ordered that Austrian prisoner Officers be deprived of their arms and the reason of this measure explained to them.

Rerh.

9th May 1915.

At the present moment, when Italy has finally made her choice of which side to support, when Rumania has in all probability entered into an agreement with Italy as to her action in the near future, when Bulgaria is sending a trusted envoy, General Savof, to Petrograd instead of to Berlin as was originally intended, the only nation whose policy still remains quite undefined is Greece. The Athenian newspaper, "Patris," sums up the situation very clearly. "There is a great difference between the time to intervene and the right time to intervene. At present there is still time to intervene, but the right time has already passed. When Venizuelos was in power, the Triple Entente itself invited Greece to take part in the forcing of the Dardanelles and the capture of Constantinople; now, however, it is a case of Greece having to ask to be allowed to take part".

The "Patris" is in fact not far from the truth. In January, Sir Edward Grey, with the approval of Paris and Petrograd, offered Greece the vilayet of Smyrna in return for the co-operation of her army. The offer was repeated on the 31st March, on the condition of immediate intervention. Greece let the opportunity slip by her, under pretext of her fear of Bulgaria. Venizuelos proposed a simple solution of the difficulty; he agreed, in return for the acquisition of Smyrna, to cede to Bulgaria part of the territories taken from her by the peace of Bukharest. But it was this that caused his downfall. The policy of his successor may be summed up in a statement of the Chanvinist newspaper "The Embros"; "Greece must either move forward into Thrace, or lose Macedonia. A square foot of land in Europe is worth more than all the fantastic acquisitions of Asia Minor." In answer to the suggestions of the Triple Entente, Greece demanded not only that nothing should be taken from her, but that the Powers should guarantee her territorial integrity for some time after the war; she

Kerh.

insisted also that her troops must remain in Europe close to the possible theatre of war with Bulgaria and that she must be allowed a free initiative in military operations. She not only refused to make any cessions herself to Bulgaria, but objected to Servia making any.

"Better the Turks than the Bulgars" is the watchword of the Greek papers.

12th June 1915.

For the special edification of neutral powers, the German Chancellor made some time ago a boastful announcement of the strength of Germany's still available reserves, which he claimed to be more than $2\frac{1}{2}$ millions. We propose, however, to examine these figures critically, and to estimate as accurately as possible the actual number of these reserves at the present moment (the middle of May) as it is on this question that the length of the war primarily depends.

A strict and unblasted estimate, verified by comparison with various official German sources of information, should give us a fairly correct answer. It is essential to determine firstly, the strength of the armed forces with which Germany commenced the war; secondly, the total number of her casualties; thirdly, the strength of her reserves at the present moment.

As regards the first question, the estimates of the strength with which Germany commenced the war have been many and various, and the majority of them have been based, to a large extent, on the figures published before the war for general consumption. When we came further to consider the strength of the new formations created by her during the last nine months, we must admit that the results arrived at are in the main mere guesswork.

We shall, we think, come nearest the truth, if we base our estimate on the firm foundation of the size of the population of Germany. Taking into consideration a normal increase for the last few years, the total numbers of both

Rerb.

sexes at the beginning of the war were about 70 millions, of whom about 34 millions, were males. It is a well-known fact that out of a hundred males the proportions of the various ages are as under :—

From 1 to 10 years of age	...	...	26.
„ 10 to 20 do.	...	...	15.
„ 20 to 25 do.	...	...	14.
„ 25 to 30 do.	...	...	12.
„ 30 to 40 do.	...	...	16.
„ 40 to 50 do.	...	...	10.
„ 50 to 100 do.	...	...	7.

That we may take it that there are about 35 per cent of a suitable age for military duty (from 18 to 50), that is, in the present instance, about 17 millions. A considerable number of these, however, at the beginning of the war were not living in Germany and have been unable to return. Besides, the official returns shew us that in peace time only about $55\frac{1}{2}$ per cent of the available numbers are taken for military service, the remainder being excused on various grounds. Even if we assume that the military authorities are in the present emergency less particular than they were in peace time, we must conclude that at the beginning of the war Germany could not have taken more than $\frac{2}{3}$ of the available male population for military service, that is, a maximum of 11 to 12 millions.

From this number we must, in accordance with the German official annual, exclude about 3 million men, who are employed in various Government services, and in such mines and factories as are essential to the supply of the army. Of course, the whole of these remaining 8 million men were not included in the regular peace organization and were many of them without training, but they represent the total supply of men on whom Germany can draw.

If we refer again to official sources of information, we may take it that Germany has, up to the middle of May,

Рез.

lost in round figures 2,750,000 in killed, severely wounded and missing. To this number must be added the sick, who, as is well known, always exceed the casualties from fire. In the present war, where the food supplies of the German armies are, to say the least, not over-abundant, this number is probably higher than the normal. But even if we allow the most favourable conditions for the Germans, the numbers of their sick can in no case be less than in ordinary peace time, that is to say from 2 to 3 per cent.

Thus it may be taken that the German casualties up to the middle of May have, at a minimum computation, reached about $3\frac{1}{2}$ millions, and his total available strength remaining is about $4\frac{1}{2}$ millions.

The present distribution of her fighting strength is, as far as can be determined, as under:—

- I. $1\frac{1}{2}$ to 2 millions on the Western front.
- II. About $1\frac{1}{2}$ millions on the Eastern front.
- III. About 300,000 remaining in Germany for internal security.
- IV. About 300,000 on lines of communication, in fortresses etc.

From a consideration of all the above data, we may conclude that Germany has at the present time not more than 1 million men, between the ages of 18 and 50, as a reserve.

How long will this reserve last? The experience of the first 9 months of war shews that the monthly losses are from 300,000 to 400,000. This, of course, depends on the intensity of the fighting, but if the above represents the figure for the winter months, there can be no doubt that the losses during the summer will be considerably heavier.

Germany is fighting with her last available strength. This is a fact that the allies should bear firmly in mind.

Rsch.

23rd June 1915.

We have several times had reason to draw attention to the bold and skilful work of our cavalry, which serves to prove the incorrectness of the modern idea, that in view of modern weapons and massed armies, cavalry has lost all its usefulness. The exponents of this theory base their arguments on the experience of recent wars, in all of which, with the exception of the South African War, cavalry has, it is true, played only a secondary role, owing to the peculiar circumstances of each campaign. It must be admitted that the importance of cavalry attacks has decreased to a minimum, owing to the fact that its numerical strength in proportion to the other arms is far less than formerly. Even a successful attack by such a large body as a division cannot exert a decisive influence on the course of a battle waged over an enormous extent of front. But it does not follow that cavalry must refrain altogether from attack.

On the contrary, under certain conditions infantry and baggage offer the most tempting object for attack. The experience of the present war has shewn that infantry, once it has got out of hand, as usually happens during a retreat, falls an easy prey to a sudden cavalry charge.

We must, of course, realize that the view that cavalry's chief usefulness consists exclusively in co-operation with the other arms and in close order charges is quite out of date. Combined action of all three arms no longer exists in modern warfare; artillery and infantry stand in no need of the co-operation of cavalry on the battle-field. But cavalry has other and more important duties, chief among which are reconnoissance and screening. It should move out as far as possible in the direction of the enemy and endeavour to overthrow and drive off his mounted troops, so as to allow its patrols to approach close to his position. It carries out, as we have seen in the Baltic provinces, big independent ex-

Rech.

peditions, making use of dismounted action at every step.

Not only must cavalry know how to reconnoitre and to screen its main body but it must act against the enemy's communications. Such action may sometimes influence the course of the action, if it is successful in completely interrupting the transport of the enemy's ammunition. The operations of our cavalry on the Telshe-Lukuishka road, in rear of the enemy position, were of this character, and had the effect of destroying his small arms ammunition columns.

This action serves as an object lesson of what can be done and what successes can be achieved by a well-trained cavalry.

3rd July 1915.

The question of the forcing of the Dardanelles has lately assumed a new importance. Quite apart from the effect which the opening of a free passage to our allies' trade would have in strengthening our national credit, the question of the Straits is now bound up with that of the munitioning of our army. Hence it is quite natural that our allies should have been making during the last few days, fresh efforts to hasten a solution of the problem.

The only help which we can and should give our allies in their present task is that of diplomacy, and it is for this reason that negotiations between the Entente and the Balkan States have been resumed with renewed energy.

As regards the operations against Constantinople, it is Bulgaria whose co-operation is of special importance, and it is unfortunately Bulgaria whose participation presents especial difficulties.

Last May, when the English ambassador in Constantinople made certain proposals to Bulgaria guaranteeing to her the unconditional cession of all territory to which she had a normal right, it was fully expected that success was at last in sight, as even the most Russophobe members of the Macedonian committee shewed an inclination to enter

Rerh.

into negotiations on the basis of these proposals. Unfortunately, when the official proposals of the Triple Entente were actually presented at Sofia at the end of May, it was found that they had undergone considerable alteration and that conditions had been introduced which to a large extent nullified the value of the concessions. Public opinion in Bulgaria at once veered round to the side of the Russophobe party which maintains that the country has nothing to gain from intervention in the war, as the Austro-Germans have already promised to satisfy all her claims by the cession of the whole of Macedonia, Old Serbia and the whole of Thrace with the exception of Adrianople. There is besides abundant evidence to shew that Germany enjoys far more influence in Turkey than does Russia in Serbia, so that the former's promises of concessions in Turkey inspire far more confidence than Russian proposals with regard to Servian Macedonia.

Although the opposition party still insists that the proposals of the Triple Entente should be treated as a basis for further negotiations, there is no doubt that all parties are unanimous in the conviction that Bulgaria cannot participate in the war until she has obtained sure and certain guarantees that she will not be robbed of her reward after that war is over, and that the story of 1913 will not be repeated. One of the most influential members of the Macedonian committee even suggests that Bulgaria should place her army at the disposal of the Triple Entente on the condition that the part of Macedonia promised to her be at once occupied by Russian, English or Bulgarian troops.

The decision of the Triple Entente is still awaited, but meanwhile negotiations are being continued between Bulgaria and Turkey. Our Bulgarophobe newspapers have seized on this as a fresh proof of Bulgaria's betrayal of Slavdom. But ordinary common sense demands that we take a calmer view of the situation and realize that Bulgaria's minimum is not

Керб.

the result of Tsar Ferdinand's diplomatic intrigues, but is the expression of a national ideal. Public opinion is even ready to effect a compromise with the Triple Entente; it is ready for instance to offer Russia part of her army, while keeping the remainder intact in case Serbia should refuse to make the concessions promised by the allied powers. We think, however, that such a compromise would constitute a tacit confession of the justice of Bulgaria's fears and would amount to nothing more nor less than a sanction of a future Bulgaro-Servian war. It seems to us that the suggestion for the immediate occupation of part of Macedonia by Russian or English troops is far more feasible.

Obviously only a bare minimum of troops would be necessary and the occupation would have a purely symbolic significance.

QUARTERLY SUMMARY OF MILITARY NEWS AND ITEMS OF INTEREST.

ARMY HEADQUARTERS.

250. Furlough and Leave.—The Government of India, Army Department, have decided that any leave granted under India Army Order No. 131, dated 21st March 1915 will be treated as special War Leave, and will not count against an officer's claim to accumulated privilege leave hereafter, *vide* paragraph 221, Army Regulations, India, Volume II.

332. Furlough and Leave.—The Government of India have had under consideration certain questions which have been raised in connection with the recall to duty from leave of military officers owing to the war and are pleased to decide as follows ;—

Dated 24th May 1915.
Army Department No. H.-5148, dated 27th May 1915.

- (i) that the leave in such cases will be held to have expired on the date of commencement of the journey to rejoin, if in India ;
- (ii) that the balance of the leave surrendered may be taken at any future date, with any leave subsequently earned, provided that, in the case of privilege leave, not more than 90 days' leave will be admissible : the condition in paragraph 221, Army Regulations, India, Volume II, which requires that an individual must have been 33 months at duty since last proceeding on privilege leave, will not be applicable to such cases ;
- (iii) that the time spent on the journey in rejoining appointments will reckon as duty, but only leave allowances will be admissible during the period of such journeys.

2. In the case of officers detained in Egypt in order to join the Expeditionary Force proceeding to the Continent, the Most Hon'ble the Secretary of State for India has decided as a special case, that Indian Army officers, departmental officers, and subordinates, and British Army officers in staff employ, recalled from leave or deputation and ordered for service with Expeditionary

Quarterly Summary of Military News.

Forces, may draw the full pay of their appointments at Indian rates from the date of disembarkation in Egypt without diminution of the emoluments of the officers acting for them, up to the date of rejoining. British Army regimental officers similarly disembarked in Egypt may also draw Indian pay from the date of disembarkation. The excess expenditure over the ordinary charges thus involved will be recovered from the War Office.

314. Military Widows' Fund, British Service.—The accounts

Dated 14th June 1915. of the Fund for the year 1914 are published for general information as an annexure to this

Order.

2. Special attention is invited to the fact that officers who were subscribers to the Fund at the time of the outbreak of War and who have since been ordered from India on active service or ordered from India elsewhere, because of the exigencies of the service due to the present European situation, have been permitted to continue their membership of the Fund until six months after the official termination of the campaign, irrespective of whether they continue to be borne on the Indian Establishment or not, and, in the event of their death whilst so serving, their families will be entitled to participate in the full benefits of the Fund.

257. Indian Military Service Family Pension Fund.—It is

Dated 24th May 1915.

Army Department No.
26405-2 (A.G.-7) dated
19th April 1915.

notified for information that a retired officer of the Indian Army subscribing to the Indian Military Service Family Pension Fund at half rates under paragraph 28, Appendix III, Army Regulations, India, Volume I, who is subsequently recalled to army service, does not become liable to pay full rates of subscription to the Fund.

396. Legal and Judicial—Indian Army.—The following Noti-

Dated 26th July 1915.

fication which appeared in the *Gazette of India*, Army Department, No. 634, dated 2nd July 1915, is republished for information, with reference to India Army Order No. 261 of 1915 :—

251. Pay and Allowances—Indian Army Reserve of Officers.—The Government of India have sanctioned the grant of the follow-

Dated 24th May 1915.

Army Department
letter No. H.-4495, dated
27th April 1915.

ing rates of pay to officers of the Indian Army Reserve of Officers selected for employment in the Military Works Services. The

officers so appointed will count against the sanctioned number of Royal Engineer officers on the cadre of the Military Works Services.

	Rank pay per mensem.	Staff pay per mensem.
	Rs.	Rs.
2nd Lieutenant ..	.. 280	150
Lieutenant ..	.. 280	173
Captain ..	.. 400	335
		} <i>plus exchange compen-</i> sation allowance in each case.

2. The conditions and terms of service specified in paragraph 2 of Army Department notification No. 60-A, dated 15th January 1915, will apply to those officers of the Indian Army Reserve of Officers joining the Military Works Services who are Government officials.

311. Passages—Sea.—With reference to Army Department letter No. H. S.-473, dated the 15th June 1915, which sanctioned the refund of passage money for the families of certain officers ordered to proceed overseas with the Expeditionary Forces who paid for their own passages to the United Kingdom or elsewhere, it is notified for information that families resident in the United Kingdom should be instructed to submit their claims to the Military Secretary, India Office, London, by whom the payments will be made.

2. Those residing elsewhere may submit their claims direct to the Military Secretary, India Office, or to the Controller of Military Accounts of the Division from which their husbands proceeded on service, whichever course may be more convenient.

3. Claims may be made through recognised agents or bankers either in India or the United Kingdom. It is not necessary to prepare claims on India Army Form T-1717.

367. Passages—Regulations.—With reference to paragraph 86, Army Regulations, India, Volume X., it has been decided that officers who were recalled to duty in India at very short notice while on privilege or other leave on the outbreak of war in August 1914 shall be treated as entitled to free passage on that occasion, irrespective of the amount of leave unexpired at the time of recall.

2. All cases of recall in connection with the present war should be disposed of accordingly.

Dated 14th June 1915.

Army Department
letter No. H.-5781, dated
23rd June 1915.

Quarterly Summary of Military News.

361. Passages—Regulations.—British regimental and non-departmental warrant officers, and all British non-commissioned officers

Dated 12th July 1915.
A r m y Department
letter No. 17762-2
(Q.M.G.-1), dated 21st
June 1915.

and men serving in India, who are granted furlough to their homes in the Colonies and are entitled to free passage from and to India, will be granted free passage for their families when they are permitted to accompany them.

2, Army Regulations, India, Volume X, will be amended accordingly.

395. Passages—Regulations.—The provisions of paragraph 108, Army Regulations, India, Volume X., regarding the grant to officers

Dated 24th July 1915.
A r m y Department
letter No. 23655-1
(Q.M.G.-1), dated 7th
July 1915.

of free conveyance for chargers when moving on permanent duty within Indian limits, are applicable not only to cases of transfer from one military appointment to another, but also to those of transfer or reversion of officers from Civil to Military duty.

REVIEWS OF BOOKS.

—o—

Times History of the War.

Parts 36 to 47.

—o—

Chapter LX takes up the tale of the fighting on the Serbian front from the point at which it was left at the end of Chapter XL ; it deals with the second Austrian invasion of Serbia in September 1914, which resulted in the Austrians holding two small portions of the western part of Serbia while the Serbs further south had occupied a portion of Eastern Bosnia 10 miles in depth, and the third invasion in November 1914, which after being within an ace of complete success ended in the headlong rout of the Austrians from Serbian soil. It appears that the Austrians in their temporary occupation of Serbian soil, endeavoured without complete success to emulate the disgusting excesses of their German allies in Belgium. The chapter is most interesting, but is marred by the inferiority of the maps of which there are three. In these several names are omitted which are mentioned in the letter press, the spelling of names on the maps does not correspond with the letter press and the printing in some cases is inferior.

The reader is now asked in Chapter LXI to make a great jump back and to study the French operations in Lorraine and the Argonne in August and September. This part of the history of the war is probably not well known by most British readers and full justice is not done to the magnificent defence of Nancy and Verdun by the French and their tenacity and courage in winning back the Forest of Argonne step by step from the Germans. The chapter too is not spoilt by the blemishes in Chapter LX ; the maps are clear and good, the printing all that can be desired and the illustrations excellent.

Chapters LXII and LXIII carry on the story of the fighting on the R. Yser and round Ypres and relate the events that happened between October 17th to 31st, while

the British, French and Belgians repulsed repeated attempts of the armies of the Duke of Wurtemberg and Crown Prince of Bavaria to break through the Allied lines and capture Calais. The steadfastness of the troops, the happy idea of inundating the country West of the R. Yser and the efficient help afforded by the Allied ships on the Belgian coasts stemmed all the German attacks with enormous losses. The chapter is clearly written and the maps and illustrations good.

Chapter LXIV, ends Volume III of the History and gives a clear and fair account of the attempted rebellion in South Africa between October 9th and November 25th. The Chapter is well up to the standard of the rest of the work but is of greater political than military interest.

Chapter LXV, describes the last part of the German attempt to break through the Allied line in South-west Belgium and capture Calais, in which the Allies just succeeded in holding their own and which culminated in the historic repulse of the Prussian Guard by the British at Ypres. It is a chapter of the greatest interest and well worth reading as it is clearly described and illustrated with a good map and woodcuts.

Chapters LXVI to LXVIII deal with other questions than the actual fighting, but are none the less interesting and important. Chapter LXVI describes the wonderful achievements of the Medical Services in France and Flanders. Chapter LXVII is a clear description of the evolution of the submarine and its work in the war. Chapter LXVIII gives the life and character of Sir John French.

Chapter LXIX describes the last phases of the Russian winter campaign, the failure of the Austrian attempts to force the Carpathian passes in January and February 1915, and the capture by the Russians of Przemyśl on March 22nd.

Chapter LXX describes the winter campaign in France and Flanders up to the end of February. It is a clear and interesting account of the fluctuations of fortune

on the North-Western front, the balance of advantage being on the side of the Allies, and the illustrations give some idea of the privations suffered by the troops in the winter cold and wet.

Chapter LXXI recounts some of the ways in which the women of Great Britain set their shoulders to the wheel and set free men to fight in Flanders, and assisted the Medical Services in looking after the sick and wounded. The continuation of the description of women's work is promised in a future number.

Chapter LXXII describes the "daily miracle," the wonderful way the Army and Navy have been fed during the War.

Recollections of a Veteran of the days of the Great Indian Mutiny,

by Arthur Owen Price, (Rs. 2-0-0).

—o—

The narratives of officers and men who have taken part in military operations form an interesting appendix to military history. History, itself is usually concerned mainly with the 'stars' on the world's stage, kings, statesmen and generals, whose doings and ways are given to us often in the minutest detail, while the 'supers', the common people and the private soldier, receive but scant attention. In military history it is customary to refer rather to the achievements of the General than to the doings of the army he commands. We read that General A marched from X. to Y., that he fought an action and that he defeated the enemy, but we are not always told much about the men who marched and fought and conquered. Yet whatever the brain at the top conceives, such orders must be carried out by thousands of human bodies at the bottom and much of the success of the plans depends on the training, the health and general fitness of those bodies and of the minds inside them. It is to personal narratives that

we must refer for information of the conditions under which the men lived, marched and fought and even for a true insight into the character of the commanders. Such writings must be read with discretion, however, as the lower the rank of the writer, the less he can know of the intentions of the General and the less is he qualified to judge on matters of policy, of strategy or even of tactics.

The narratives of those who took part in the military operations of the eventful years 1857-1858 must always have an absorbing interest for the Briton in India, and Mr. Owen's little book should find many readers. As a member of that most famous regiment, the 1st Madras Fusiliers and as a temporary member of the battery of the equally famous "Hell Fire Jack", Mr Owen saw most of the fighting in Oudh. His book contains many historical references which will interest those unacquainted with Indian history; but the student of military history will regret that more space was not devoted to personal experiences and to more details of regimental and battery life at the time of the Great Mutiny. After serving his time as a soldier with great credit, Mr. Owen joined the Lucknow City Police and has many interesting stories of the dealings with unsatisfactory Europeans.

The book is marred by many misprints but is an interesting record of a creditable and useful life.

(Copies of the book may be obtained from Mr. Arthur-Owen, Greenview, Simla.)

"Campaigning Kit—What to take and how to take it.

by X. Q. (*Higginbotham, Madras.*)

—o—

This is an excellent little book, full of sound advice and useful hints. It is primarily intended for Indian conditions, but will prove valuable in most countries. The officer who has thought out his own field service kit and

has it ready at all times, or knows at any rate, what he has to get, is saved a vast amount of worry when he suddenly gets orders to move, especially so in India where things are seldom procurable on the spot. Also he is left free to deal with the numerous other calls on his attention which crowd upon him at such a time. But what is of far greater importance is, that during the actual expedition he is not continually being worried with petty details about his own kit which he cannot ignore and probably cannot remedy. Accidents to kit are inevitable but they need not be increased by want of preparation beforehand.

All this is quite obvious, but at the same time it is very rare to come across an officer who has all that he wants, ready at a moment's notice.

Most officers in India have their own ideas on what a campaigning kit should consist of, based on their own experience, but the most experienced are generally the keenest in getting new ideas and picking up tips. But those whose experiences are limited, will find much useful information in this little book, which is strongly recommended to their notice.

One or two points call for remarks:—

Aluminium hob-nails are condemned because they drop out. Surely it should be possible to drive them into the sole before it is sewn to the boot and turn the points over. They have many advantages over iron ones, being lighter and more silent on stones, also they do not slip on ice or rocks.

A Pillow is considered a luxury to be dispensed with, but an air cushion is not mentioned. The weight of the latter is trifling and one is always well worth taking.

Lamps and Lanterns. Many of the numerous electric ones are quite suitable and are in every way superior to candles or oil. Batteries for refilling can be got by post as easily

as oil or caudles and the light is independent of heat, cold or wet.

Matches must always be inclosed in air and water-tight boxes and be of the best quality or the space they take up is wasted.

A Compass is not mentioned, but this is an essential, and should have a luminous face.

A Periscope also is not mentioned. This would appear to be an indispensable part of an officer's kit in campaigning in any part of the world in modern warfare. There are many varieties on the market.

Canvas. The writer frequently recommends Willesden or green canvas in which he is perfectly right. It has a very valuable qualification in India, as it is avoided by white ants.

Duplicator. This is rather outside an officer's private kit, but is mentioned here in the hope that makers of these things may see this and devote their ingenuity to devising one, as nothing suitable for field service exists, as far as we are aware.

What is wanted is some means of producing at least 15 copies of an order, letter or map, which is light, portable and can be used anywhere in the open. Every variety of carbon paper is a sore trial to the Staff or Signalling officer in wind or rain, but nothing better seems to have been invented.

“Choosing kit—A Guide to Active Service Requirements.”

(McBride, Nast & Co., London.)

Probably most of our readers have seen the articles in “Land and Water” on choosing kit, and will welcome this little book which embodies them in a handy form. It goes into rather more detail, however, than those articles did, and gives the names of the makers and suppliers of the

articles mentioned, and as the writer claims to have tested every article recommended under field service conditions, the book has all the greater value.

It is intended more especially for those on active service in Europe, but has much useful information for other countries, as, of course, many articles are required everywhere.

With these two books to guide him, an officer will be able to complete his field service kit for any conceivable campaign.

WAR OFFICE PUBLICATIONS.

DRILL BOOKS, ETC.

	Rs.	A.
Infantry Training, 1914	0 8
Cavalry Training, 1912, Reprinted 1915	1 0
Field Artillery Training, 1914	0 12
Garrison Artillery Training, Vol. I, 1914	0 8
Do. do. do. Vol. III, 1911	1 0
Army Service Corps Training, Part I, 1910	0 12
Do. do. do. do. IV, 1911	1 4
Ceremonial Regulations, 1912	0 6
Cyclist Training, 1914	0 6
Engineer Training, 1912	0 8
Manual of Field Engineering, 1911, Reprinted 1914	0 12
Field Service Regulations, Part I, Operations War Office, 1914	0 8
Do. do. Part II, Organization 1909, Rp. 1914	1 0
Section Gun Drill, 18 Pr. Q. F. Gun 1914	0 2
Do. do. 15 B. L. 1914	0 2
Practical Ques. and Ans. on the 18 Pr. Q. F. Gun Equipment	0 14
Manual of Elementary Military Hygiene, 1912	0 8
R. A. M. C. Training, 1914	0 12
Regulations Army Medical Service, 1914	0 5
Mekometer Handbook, 1912	0 8
Mobilization Regulations, 1912	0 8
Musketry Regulations, Part I, Reprinted 1914	0 8
Do. do. Part II, do. 1914	0 5
Signalling Training Manual, Part II, 1914	0 8
Text Book of Small Arms, 1909	2 8
Notes on Service Telescopes and Binoculars, 1909	0 8
Manual of Army Postal Service, (War) 1913	0 4
Animal Management, 1908, Reprinted 1914	1 8
Handbook Military Artificers, 1910	1 0
Instruction in Bayonet Fighting	0 2
Chiropody Manual, 1908	0 4
War Establishments, Part I, 1913-14	0 10
Field Service Manual, Infantry Battalion	0 4
King's Regulations, 1914	1 0
Regulations Intelligence Duties in the Field, 1904	0 3
Railway Manual, War, 1911	0 8
Royal Warrant for the Pay, etc. of the Army, 1914	0 8
Manual of Map Reading and Field Sketching, 1912, Reprinted with Amendments, 1914	1 0
Notes on Map Reading for Use in Army Schools, 1915	0 4

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London, Aldershot & Portsmouth.*

UNITED SERVICE INSTITUTION OF INDIA

JANUARY 1915.

SECRETARY'S NOTES

I.—New Members.

The following members joined the Institution between the 1st October and the 1st December 1914, inclusive:—

LIFE MEMBERS.

Lieut. R. H. H. Moore.

ORDINARY MEMBERS.

Captain T. B. Skinner.

A. A. L. Parsons, Esq.

Lieut. C. D. A. Bingham.

Lieut. C. C. Crick.

Captain A. Lethbridge.

Captain J. Ardoino.

Major P. F. Chapman.

Lieut.-Colonel G. R. Oakes.

Captain G. H. Rogers.

II.—Tactical Problems.

In order to assist officers, tactical schemes are issued by the Council of the Institution, to members only, at Rs. 5 per scheme, which include criticisms and solutions by fully qualified officers selected by the Council. 26 schemes are now available.

A number will be allotted to each member with his papers, and solutions must be sent under these numbers to the Secretary, Simla.

III.—Military History Papers.

(i) In order to assist officers in the study of military history, the Institution has for issue, to members only, sets of questions on selected campaigns. The following papers are now available:—

(a) One paper on the Waterloo Campaign.

(b) Three papers on Callwell's Small Wars.

(c) Two papers on the strategy of the Russo-Japanese War,

(d) Five papers on the battles of the Russo-Japanese War.

(ii)

Secretary's Notes.

- (e) Two papers on the Afghan War, 1879-80.
- (f) Two papers on the Crimean War.
- (g) One paper on the Indian Mutiny.
- (h) One paper on the Shenandoah Valley Campaign, 1861-62.
- (i) One paper on the Bohemian Campaign, 1866, to the Battle of Koniggratz, inclusive.
- (j) One paper on the Jena Campaign, 1806.
- (k) One paper on the Franco-German War, 1871.

The charge for these papers is Rs. 5 each, which includes criticism by fully qualified officers selected by the Council. A number will be allotted to each member with his papers, and answers must be sent under these numbers to the Secretary, Simla.

(ii) Pamphlets dealing with the Shenandoah Valley Campaign from April 1861 to June 1862, the Bohemian Campaign, 1866, to the battle of Koniggratz, inclusive, and the Battle of Liouyang, can be obtained from the Secretary, Price Re 1 each, or Re. 1-2-0 per V.P.P.

IV.—Premia for Articles in the Journal.

As it does not seem to be generally known that articles are paid for, members are informed that a sum of approximately Rs. 400 is awarded for articles and reviews published in each Quarterly Journal.

V.—Library Catalogue.

The library catalogue revised up to 1st November 1912 is available. Members requiring copies should kindly inform the Secretary. Lists of books since received are published quarterly with the Journal.

Price of catalogue Re. 1, or Re. 1-4-0 per V. P. P.

VI.—Books, etc., presented to the Institution.

The acknowledgments of the Council for the following presentations are hereby recorded:—

By Brig.-General A. H. Bingley, C.I.E.

"Storia Do Mogor" or Mogul India 1653-1708 (3 vols.)
The Life and opinions of General Sir Charles James Napier (4 vols.)
The Wellington Memorial.
Text Book on Fortification, etc.
Questions and answers on Tactics.
Guerilla or Partisan Warfare.
Problems in Manœuvre Tactics.
Tactical Operations for Field Officers.
Letters on Artillery.
Cavalry in Modern War.
The Rise of the Empire.
Defence and attack of Positions and Localities.
Four modern Naval Campaigns.

VII.—Gold Medal Prize Essay, 1914-1915.

The Council have chosen as the subject for the Gold Medal Essay for 1914-15 the following:—

“Recognising that the Domiciled Community of India is of value for military purposes, what is the best method of utilizing it? Give suggestions for its organization and training.”

The following are the conditions of the competition:—

- (1) The competition is open to all gazetted officers of the Civil Administration, the Navy, Army, and Volunteers.
- (2) Essays must be printed or type-written and submitted in duplicate.
- (3) When a reference is made to any work, the title of such work is to be quoted.
- (4) Essays are to be *strictly anonymous*. Each must have a motto, and enclosed with the essay there should be sent a *sealed* envelope with the motto written on the outside and the name of the competitor inside.
- (5) Essays will not be accepted unless received by Secretary on or before the 30th June 1915.
- (6) Essays will be submitted for adjudication to referees chosen by the Council. No medal will be awarded if the Council consider that the best essay is not of a sufficient standard of excellence.
- (7) The name of the successful candidate will be announced at a Council Meeting to be held in August or September 1915.
- (8) All essays submitted are to become the property of the United Service Institution of India, *absolutely*, and authors will not be at liberty to make any use whatsoever of their essays without the sanction of the Council.
- (9) Essays must not exceed 15 pages of the size and style of the Journal, exclusive of any appendices, tables or maps.

VIII.—Contributions to the Journal.

With reference to Army Regulations, India, Volume II, paragraph 483, and King's Regulations, paragraph 453, as amended by Army Order 340 of 1913, intending contributors to the Journal of the United Service Institution of India are informed that action to obtain the sanction of His Excellency the Commander-in-Chief to the publication of any article in the Journal of the United Service Institution of India will be taken by the Committee. Contributors are, therefore, responsible that the sanction of their immediate superior has been obtained, and this should be noted on all articles sent for publication. Articles need not be submitted in duplicate.

Contributors are requested to have their articles either typed or printed.

(iv)

IX.—The Institution is prepared to supply members and units with manuscript type-written or printed pages from old Army Lists since 1800. Endeavours will also be made to procure extracts from the "Registers" prior to that date. The following will be the rates charged :—

Manuscript copy of each page	...	...	...	Re. 1 0 0
Typewritten or printed * per page	...	...	...	Rs. 2 0 0
Binding if required	...	...	...	Extra.

* If facsimile of *type* is required the price of printed pages will range from Rs. 5-8 to Rs. 2-12 per page, according to the amount of matter on each page. The higher rate being charged for pages similar to those of the Indian Army in the current Army List.

X.—War Map.

War Maps are on view in the Reading Room of the Institution, with the position of the troops, so far as is known, marked with flags.

Diary of the War.

(v)

Up to the 15th December 1914.

28TH JUNE 1914. The Archduke Franz Ferdinand of Austria assassinated at Serajevo in Bosnia.

23RD JULY. Austrian ultimatum to Servia, asking for an answer within 24 hours.

24TH JULY. Russian note to Austria asking for an extension of the period for the answer by Servia.

27TH JULY. Austrian mobilisation commenced.

28TH JULY. Austria declared war on Servia.

29TH JULY. British fleet sailed from Portland, precautionary stage ordered throughout the British Empire. Austrians bombarded Belgrade.

31ST JULY—Russian mobilisation commenced. Martial law proclaimed in Germany.

1ST AUGUST. Germany declared war on Russia. Italy declared her neutrality. Germany invaded Luxemburg.

2ND AUGUST.—French mobilisation commenced at midnight 1st—2nd. German cruiser bombarded Libau.

3RD AUGUST.—German ultimatum to Belgium. War declared between France and Germany.

4TH AUGUST.—Neutrality of Belgium violated. German fleet passed through the Kiel canal into the North Sea. Turkish mobilisation commenced. Great Britain declared war on Germany. Germany promised to observe the neutrality of Holland.

5TH AUGUST.—British mobilisation commenced at midnight 4th—5th. Germany declared war on Belgium. Declarations of neutrality by the United States, Sweden, Roumania and Turkey. Germans attacked Liege. German cruiser "Breslau" bombarded Bona in Algeria. Lord Kitchener

(vi)

Diary of the War.

appointed Secretary of State for War. 7th German Army Corps repulsed at Liege.

6TH AUGUST.—Renewed fighting round Liege; two forts silenced. General Leman taken prisoner while insensible. H. M. S. Amphion mined and sunk, 131 men lost. £100,000,000 and 500,000 men voted for the war. Austria declared war on Russia.

7TH AUGUST.—Spain declared her neutrality. German mobilisation of obsolete ships at the Baltic ports.

8TH AUGUST.—Capture of Altkirch by the French. Allied French and British forces invaded German Togoland.

9TH AUGUST.—British cruiser "Birmingham" sunk a German submarine. French occupy Mulhausen. Servia declared war on Germany. Japanese fleet put to sea. Russian troops invaded Austrian territory.

10TH AUGUST.—France declared war on Austria. Germans entered Liege town, the forts still holding out. Bombardment of Antivari by the Austrians.

11TH AUGUST.—French retired from Alsace. The German cruisers "Goeben" and "Breslau" entered the Dardanelles, Montenegro declared war on Germany.

12TH AUGUST.—Germans bombarded Pont-a-Mousson. Great Britain declared war on Austria. The sale of the "Goeben" and the "Breslau" to Turkey announced. The German Government announced its intention to take the people's savings, £1,500,000,000 in case of need. Germans repulsed at Haelen.

13TH AUGUST.—Belgian successes at Eghezee and the R. Othain. Russians captured Sokol in Galicia. Liege forts fell.

14TH AUGUST.—Reported destruction of a Zeppelin near Nancy. French Army announced as being in touch with the Belgians. Belgian success at Goet Betz.

15TH AUGUST.—The British cruiser "Pegasus" bombarded Dar-es-Salaam. Japanese ultimatum to Germany demanding evacuation of Kiao-chau. Battle of Dinant, Germans repulsed. French invade German Lorraine. Russian Proclamation

issued promising the reconstitution and autonomy of the Kingdom of Poland.

16th AUGUST.—Minor French successes at Avricourt, Cirey and Dinant. British Expeditionary Force completed its landing in France.

17th AUGUST.—Austrian cruiser "Zenta" sunk by the French in the Adriatic.

Germans attacked Taveta in British East Africa. Belgian Government moved to Antwerp.

18th AUGUST.—French occupied Colmar and advanced to near Shirmack and Saarburg. Russian mobilisation completed. Servians defeated Austrians at Shabatz and Loznitza. Germans captured Diest and Tirlemont.

19th AUGUST.—German position ran from Neufchateau to Dinant, and they pushed large force across the R. Meuse between Liege and Namur, their cavalry reached the R. Dyle. French reoccupied Mulhausen and took Guebwiller. Russians occupied Gumbinnen. Reports received of a mutiny of Czech troops at Prague.

20th AUGUST.—Germans occupied Brussels. Belgian army retired into Antwerp, their rearguard suffering heavily. Austrians attacked Krasnik.

21st AUGUST.—Germans occupied Alost, Wetteren and Ghent. Russians occupied Lyck. Battle of Charleroi between French and Germans commences. German invasion of S. Africa, French reverse on R. Seille.

22nd AUGUST.—British holding the line Condé-Mons-Binche opposed by 2 German Army Corps, the French continuing the line through Charleroi to Dinant. Germans attacked Namur. Russians occupied Goldapp. French driven from Charleroi.

23rd AUGUST.—British still holding the line Condé-Mons-Binche, in the evening it was ascertained that 3 German Army Corps were moving frontally against them and a fourth Army Corps was advancing to turn their left from Tournai. The Germans had succeeded in forcing the pas-

sage of the R. Meuse at Givet and the French were falling back to the line Valenciennes-Maubeuge.

Japan declared war on Germany. Russians captured Arys, Soldau and Insterburg.

24TH AUGUST.—The Anglo-French Army fell back to the line Lille—Valenciennes—Maubeuge—Mezières. Namur fell. Germans occupied Luneville. Russians occupied Johannesburg, Ortelsburg, Willenburg, Heidenburg and Arys.

25TH AUGUST.—The Allied left wing fell back to the line Cambrai—Le Cateau—Landrecies, Sortie by the Belgians from Antwerp to Malines. Destruction of Louvain, Commencement of battle of Lemberg.

26TH AUGUST.—The retirement of the British Expeditionary forces from the line, Cambrai—Le Cateau very severely pressed. Togoland surrendered. Russians occupied Nordenburg, Sensburg and Bishofsburg in E. Prussia, Tarnopol in Galicia.

27TH AUGUST.—“Kaiser Wilhelm der Grosse” armed merchantmen, sunk by H. M. S. “Highflyer.” British Marines occupied Ostend. Allies left still retiring. Russians captured Rothfleiss near Allenstein in E. Prussia. Russians defeated the Austrians on the R. Zlota Lipa. French and British fleets bombarded Cattaro. German cruiser “Magdeburg” destroyed in the Baltic.

28TH AUGUST.—The British beat off German attacks and reached the line Noyon—Chauny—La Fère—Laon. Cruiser action off Heligoland, Germans lost 3 small cruisers and 2 destroyers, British lost no ships. Russians occupied Allenstein.

29TH AUGUST.—Russians invested Königsburg and were engaged at Graudenz and Thorn. French repulsed 3 German Corps at Guise.

30TH AUGUST.—The Allies in France held the line from the mouth of the R. Somme—La Fère—Laon—Mezières and gained a success at St. Quentin. The 5th and 7th French Army Corps took up their position on the left of the British. Austrians invade Russian Poland.

AUGUST 31ST.—Allies retire to take up the line of the Seine, the Oise, and the Upper Meuse. Russians under

General Samsonoff defeated at Osterode, Germans claim to have destroyed or captured three Army Corps.

1ST SEPTEMBER.—German attacks on the Allies left which had ceased since 28th August, were renewed. British checked a German cavalry corps at Compiègne and captured 10 guns. Germans advanced on Antwerp capturing Malines, Termonde and St. Nicholas. Fortification of Brussels commenced. British losses to date 15,000.

2ND SEPTEMBER.—Fresh German troops drove back the Russians in E. Prussia. After 7 days' battle near Lemberg the Russians defeated the 3rd, 11th and 14th Austrian Corps, Austrian losses 130,000 men and 200 guns.

3RD SEPTEMBER.—French Government transferred to Bordeaux. The 1st German army ceased its advance on Paris and turned south-east; passed through Rheims to La Ferte Sousjoularre. 2nd Army reached Chateau Thierry, the 3rd Army the line Suippe—Ville Jourbe.

Russians occupied Lemburg.

4TH SEPTEMBER.—The Belgians opened the dykes and flooded out a German force near Termonde.

5TH SEPTEMBER.—The Germans crossed the R. Marne. Germans sank 15 fishing boats in the North-Sea.

Russians and Austrians engaged on the line Lublin-Kholm. Bombardment of Maubeuge.

6TH SEPTEMBER.—The Germans reached the line Coulommiers—La Ferte Gaucher—R. Morin—Vitry—Verdun. They withdrew their troops from north-west France. H. M. S. "Pathfinder" was torpedoed in the North-Sea.

Montenegrins gained a success at Boljanitsa in Herzegovina.

7TH SEPTEMBER.—The Allies left wing, British and 2 French Army Corps, attacked the Germans on the R. Ourcq, guarding the right rear of the German main forces. The German line was R. Ourcq—R. Petit Morin—Montmirail—Petit Sommepeuis—Vitry—Sermais-les-Bains. Maubeuge fell.

Russians in E. Prussia succeeded in beating off the Germans on the line Nordenburg—Goldapp—Suwalki.

8TH SEPTEMBER.—Germans fell back to the R. Marne. The "Oceanic" wrecked on the N. Coast of Scotland. Russians in Galicia captured Mikhailov and engaged the Austrians at Rawa-Ruska.

9TH SEPTEMBER.—6th French Army Corps engaged Germans on the R. Ourcq, British drove the Germans across the R. Petit Morin and R. Marne.

10TH SEPTEMBER.—Servians occupied Semlin. 5th French Army Corps reached Chateau Thierry; British at Dormans on the Marne took 1,500 prisoners, 4 guns and 6 maxims. 60,000 Germans transferred from Belgium to France.

Belgians advanced to Wetteren.

Russians and Austrians engaged on the line Rawa Ruska—Tomashov—Krasnik.

German fleet seen in the Baltic.

German attack on Karonga in British Nyassaland.

11TH SEPTEMBER.—Germans on a front Soissons—Braisne—Fismes—Rheims—north of Vitry—Champenoux—Rehainvillers—Guebwiller.

French success at Saint Dié capturing 15 guns.

Australians occupied Herbertshöhe in the Bismarck Archipelago. Turkey announced the abolition of the Capitulations.

12TH SEPTEMBER.—Germans fell back to the line Soissons—Craonne—Rheims—St. Ménéhould—North of Verdun, losing 160 guns. Beginning of battle of the R. Aisne.

Belgian sortie from Antwerp. Great Russian victory over General von Auffenberg's army in Galicia.

SEPTEMBER 13TH.—German invasion of British East Africa announced. German cruiser "Hela" sunk by British submarine E-9. Allies force the passage of the Aisne near Soissons. Germans defeated by Russians on the Niemen near Sredniki.

SEPTEMBER 14TH.—German Headquarters in France removed from St. Ménéhould to Montfaucon. Imperial Crown Prince's Army in retreat. The Russians across the lower

Diary of the War.

(xi)

San. The British auxiliary cruiser "Carmania" sinks a German armed cruiser, the "Cap Trafalgar."

SEPTEMBER 17TH.—Russian official reports record the utter rout of the Austrian Army in Galicia, with losses of 250,000 killed and wounded, 100,000 prisoners, 400 guns and flags and stores.

SEPTEMBER 20TH.—Bombardment of Rheims Cathedral. H. M. S. "Pegasus" is completely disabled while at anchor in Zanzibar Harbour by the German cruiser "Konigsberg." The Admiralty state that between September 10 and September 14 the German cruiser "Emden" has captured six British ships in the Bay of Bengal, sinking five of them.

SEPTEMBER 21ST.—"Violent fighting" continues in the Craonne district. The French Government sends a protest to the neutral Powers against the wanton destruction of Rheims Cathedral.

SEPTEMBER 22ND.—The British cruisers "Aboukir," "Hogue," and "Cressy," sunk by a German submarine in the North Sea.

SEPTEMBER 23RD.—The Admiralty announce that a raid on the Zeppelin airship sheds at Dusseldorf has been carried out by the British Naval Wing. Violent combats have taken place on the banks of the Oise.

SEPTEMBER 24TH.—A British Expeditionary Force arrives at Laoshan Bay to participate in the movements against the Germans at Tsingtau.

SEPTEMBER 25TH.—The Australian forces announce their occupation of the seat of government of Kaiser Wilhelm's Land in German New Guinea.

SEPTEMBER 26TH.—German forward movement against Antwerp begins with a fresh advance upon Malines. The Russians push their advantage in Galicia, and establish their position on the railway to Cracow. Indian Expeditionary Force lands in France.

SEPTEMBER 27TH.—Germans occupy Malines.

SEPTEMBER 28TH.—Heavy artillery fire opened by Germans on the Wealhem-Wavre St. Catherine sector of the Antwerp defences.

SEPTEMBER 29TH.—Magazine at Fort Waelhem blown up. Little advance reported on either side at the front. Admiralty announces sinking of four British steamships and a collier by the German cruiser "Emden."

SEPTEMBER 30TH.—Fort Waelhem and the Antwerp water-works destroyed.

OCTOBER 1ST.—Germans, having temporarily silenced the Koningshoyckt and Lierre forts, attempt to rush the Belgium trenches, but are repulsed. Italian Government protests against Austrian mine-laying in neutral waters.

OCTOBER 2ND.—Belgians retire across the Nethe, blowing up the Waelhem Bridge. Admiralty state that H. M. S. "Cumberland" has captured nine German liners and a gunboat off the Cameroon River (West Africa).

OCTOBER 3RD.—Fifteen German Army Corps advancing into Russia from Silesia. Admiralty notifies the laying down of a defensive mine-field in the North Sea.

OCTOBER 4TH.—The 23rd day of the Battle of the Aisne, now the longest battle in history. Bombardment of Antwerp continues, with terrific fire upon Lierre. Russians capture Augustovo.

OCTOBER 5TH.—Allies resume the offensive on their left wing. Main Russian Army posted on the Middle Vistula. Strength of the Germans and Austrians in this theatre estimated at about 88 Army Corps, and of the Russians at 100, not less than four million men to engage in impending battle. Germans thrice repulsed in their attempts to cross the Nethe near Antwerp, and British reinforcements arrive.

OCTOBER 6TH.—Belgian Government, with the Legations and Consulates of the Allied Powers, withdraw from Antwerp. Germans endeavour to break across the Scheldt in order to cut off the retreat of the Antwerp garrison. Violent indecisive fighting north of the Oise. Colonial Office announces frontier engagements in British East African Protectorate, and defeat of the Germans in every case.

OCTOBER 7TH.—Antwerp evacuated by the Allies. The Germans cross the Scheldt at Termonde, Schoonaerde, and Wetteren. Russians moving all along the front, with Rennenkampf following up the retreat of the defeated German Army. Japanese occupy capital of Marshall Islands in the Pacific.

OCTOBER 8TH.—Allies' left wing still lengthening northwards. Belgians destroy the petrol stores at Antwerp. Submarine E-9 (Commander Max K. Horton) sinks a German destroyer (S 126) at the mouth of the Ems. Canada to send a second expeditionary Force (10,000 men).

OCTOBER 9TH.—Antwerp occupied by the Germans, Belgian field army and British Naval Division retired on Ostend.

OCTOBER 10TH.—The flank battle in the Arras district continues. Naval airman successfully raid the Zeppelin sheds at Düsseldorf, their bombs causing flames some hundreds of feet high. Russians invade Hungary. Death of King Carol of Rumania.

OCTOBER 11TH.—Progress in parts of the Allied lines. fighting on the East Prussian frontier. Germans driven back towards Masurian Lakes. German airmen dropped 20 bombs on Paris.

OCTOBER 12TH.—News received that 2,000 British and many Belgian troops, on leaving Antwerp, went into Holland, and were interned.

OCTOBER 13TH.—Germans to levy £20,000,000 upon Antwerp, bringing total war indemnities they have demanded to £48,000,000 to date. Russian cruiser "Pallada" sunk in Baltic by German submarine. The Belgian Government withdraws to Le Havre, in France. Germans occupy Ghent. Fighting near Bruges. Twenty-eight Austro-German Army Corps reported to be operating in Poland. Lieut.-Colonel Maritz, in command of a detachment of Union forces on the Orange River, rebels and goes over to the enemy. Martial law proclaimed in South Africa.

OCTOBER 14TH.—Germans move towards coast. French Armies progressing in the Arras area. Allies occupy Ypres,

OCTOBER 15TH.—H. M. S. "Hawke" sunk by German submarine in North Sea.

OCTOBER 16TH.—Germans advance towards Bruges and Ostend. Allies make notable progress in the Lens district. Russians fighting on a front from Warsaw to Przemyśl and Dneister. Canadian troops arrive in England. Southern Rhodesia raises 1,000 men. H. M. S. "Yarmouth" sinks the Emden's collier, the "Markomannia."

OCTOBER 17TH.—Allies operating between Ypres and the coast. Germans driven back near Warsaw. H. M. S. "Undaunted" and destroyers sink four German destroyers off the Dutch coast.

OCTOBER 18TH.—Fight for Northern France shows no substantial development. British ships begin to take part in the coast battle.

OCTOBER 19TH.—Allies drive back the Germans 30 miles. Cholera increasing in Hungary.

OCTOBER 20TH.—Reported southward movement of fresh German troops towards French frontier.

OCTOBER 21ST.—The Allies make progress at various points, the Belgians withstanding attacks on the Yser.

OCTOBER 22ND.—Germans in flight from Warsaw. "Violent fighting" in Ostend-Nieuport area. Further losses due to raids by the German cruiser "Emden."

OCTOBER 23RD.—Heavy fighting on French and Belgian coasts. Russians completely repulse German advance on Warsaw. The Admiralty announce that Submarine E-3 is overdue, and probably lost. (A German "wireless" reported that this vessel had sunk on October 18.)

OCTOBER 24TH.—German "life or death" struggle towards Calais continues, German forces being well held.

OCTOBER 25.—Admiralty announce the destruction of a German submarine by H.M.S. "Badger." Desperate fighting continues on the Franco-Belgian coast.

OCTOBER 26TH.—Favourable reports of the Allied position at practically all points. An Admiralty *communiqué* indicates that the British monitors and other craft are

rendering invaluable aid to the Allied operations against the German right wing.

OCTOBER 27TH.—The German rush in Northern France is stemmed, the Allies front between the coast and Dixmude being maintained. The Germans defeated before Warsaw, are beaten in rearguard actions. The rebel Maritz is totally defeated and flees into German territory. Portuguese naval reserves called up. The French liner *Amiral Ganteaume*, with 2,500 refugees, who are rescued, was torpedoed in the channel by a German submarine.

OCTOBER 28th.—Severe fighting continues in Flanders, the enemy being thrust back and German batteries wiped out. Russians make marked progress in Poland. Rebellious movement in South Africa by General Christian de Wet in the north of the Free State, and by General Beyers in the Western Transvaal.

OCTOBER 29TH.—On both fronts the Germans make no progress, General Botha routs Beyers in the Transvaal, and captures 80 men.

OCTOBER 30TH.—The Allies gain ground at many points and repulse the intended move towards Dunkirk and Calais. Russians prevailing against both German and Austrian forces. Admiral H. S. H. Prince Louis of Battenberg resigns his position as First Sea Lord of the Admiralty. Admiral of the Fleet Lord Fisher appointed to succeed him. Turkey commits definite acts of hostility against Russia.

OCTOBER 31ST.—Severe fighting and almost general advance of the Allies, but German offensive intensified. Turks bombard Odessa, and Beduin tribes violate the Egyptian frontier. More of Maritz's rebels captured in South Africa. H. M. S. "*Hermes*" sunk in the Straits of Dover by a German submarine. Further activity of the German cruiser "*Emden*" reported; sinks a Russian cruiser and a French destroyer at Penang. Saseno occupied by Italy, General bombardment of Tsingtau begins, and Indian troops join the Anglo-Japanese forces there.

NOVEMBER 1ST.—Violent German attacks in Ypres region, all repulsed by Allies, who are also holding the enemy in

the Argonne. Russians pursuing to Poland. Foreign Office statement issued describing recent provocative attitude of Turkey. General bombardment of Tsingtau continues. H. M. S. "Monmouth" and H. M. S. "Good Hope" sunk in an action on the Chilean coast.

NOVEMBER 2ND.—The Admiralty give notice that the whole of the North Sea must be considered a military area. German offensive continues on Franco-Belgian frontier, the Kaiser being present.

NOVEMBER 3RD.—Allies maintain their positions, and Petrograd reports successes on East Prussian frontier. British and French squadron bombards the Dardanelles forts. German cruisers attack H. M. S. "Halcyon," a coastguard gunboat patrolling off Yarmouth, and scatter mines, one of which destroys H. M. S. Submarine D5.

NOVEMBER 4TH.—Belgian reports of great eastward move of German troops. Russians compel Germans to retire on East Prussian front. The German cruiser "Yorck" destroyed by a mine near Wilhelmshaven. British reverse in German East Africa, casualties numbering 141 British officers and men.

NOVEMBER 5TH.—Great Britain declares war on Turkey "owing to hostile acts committed by Turkish forces under German officers." Cyprus annexed. Allies on the offensive again in the coast battle.

NOVEMBER 6TH.—The line of the San again in Russian hands. The Germans make no progress in the Franco-Belgian arena. Tsingtau central fort stormed, 200 prisoners being taken. Germans intern British subjects of military age.

NOVEMBER 7TH.—Fall of Tsingtau, taking of 2,300 prisoners (Japanese casualties in final assault, 440 killed and wounded; and previously during the siege, 200 killed and 878 wounded). Enemy well held in Flanders. Russians bombard two Black Sea ports.

NOVEMBER 8TH.—Rapid Russian advance in Prussian Poland. Allies advance along almost the whole line in Flanders. Admiralty report British raid in Persian Gulf.

NOVEMBER 9TH.—Allies make steady progress. Russians advancing rapidly. German cruiser "Geier" interned by U. S. A. at Honolulu. Artillery fight in Armenia, around Kuprukeui.

NOVEMBER 10TH.—The German cruiser "Emden" caught and destroyed by H. M. A. S. "Sydney" at Cocos Island. Another, the "Königsberg," is found hiding in a creek in German East Africa, and the navigable channel is blocked to keep her imprisoned. Fierce fighting continues in Flanders. Russian success against the Turks.

NOVEMBER 11TH.—The King opens Parliament; Germans succeed in taking Dixmude. De Wet routed by General Botha.

NOVEMBER 12TH.—Russians well over the frontier of East Prussia. Allies continue to hold the enemy firmly, particularly fierce fighting around Ypres.

NOVEMBER 13TH.—The onslaught upon the British at Ypres slackens.

NOVEMBER 14TH.—Field-Marshal Lord Roberts dies of pneumonia while visiting France to inspect the Indian troops of which he was Colonel-in-Chief. German defeat near Ypres.

NOVEMBER 15TH.—Further attacks on Ypres repulsed, Russians levy on East Prussian towns war taxes proportioned to the German imposts in Belgium.

NOVEMBER 16TH.—The Allies retake position yielded some days ago. German advance from Thorn pushed back.

NOVEMBER 17TH.—The Chancellor of the Exchequer announces that a War Loan of £350,000,000 is to be raised, issued at £95. It will yield $3\frac{1}{2}$ per cent., and is redeemable at par not later than March 1st, 1928. Additional duties are imposed on tea and beer, and the income-tax is raised. No substantial recorded change on either the East or West fronts. Turks defeated at the head of the Persian Gulf.

NOVEMBER 18TH.—German squadron shells Libau. British divisions drive back German attacks, inflicting heavy losses on enemy. Russian Black Sea Fleet engaging "Goeben"

and "Breslau," both of which disappeared, the former after an explosion aboard, and the latter without taking part in the fight.

NOVEMBER 19TH.—Funeral of Lord Roberts at St. Paul's Cathedral. Renewed activity of enemy in Flanders.

NOVEMBER 20TH.—General slackening of the attack in Flanders, and evident failure of five weeks' struggle towards Calais. Admiralty announce further extension of system of mine defences, with compulsory pilotage in North Sea. The Bikanir Camel Corps beats off with only 20 men a considerable force of Turks on the coast some 30 miles from Port Said.

NOVEMBER 21ST.—Petrograd reports large German forces under General Hindenburge near Lowitz, towards Warsaw. The city of Basra, at the head of the Persian Gulf, occupied by British forces from India. British airmen raid the Zeppelin factory at Friedrichshafen, Squadron-Commander Briggs, R. N., being brought down and slightly wounded by the enemy.

NOVEMBER 22ND.—Enemy's activity in Flanders becomes intermittent, but French artillery attack fully sustained. Turks deny that the "Goeben" was seriously injured. Russians progressing in the Caucasus.

NOVEMBER 23RD.—Ypres in flames, belfry, Cathedral, and market damaged. The German submarine U. 18 rammed by a British warship off the North Coast of Scotland, the officers and crew being saved. Bombardment of Zeebrugge by a British Squadron, which inflicted tremendous damage on German positions. Portuguese Government is authorized by Congress to intervene in the war when and how it deems proper as Great Britain's Ally.

NOVEMBER 24TH.—Royal Warrant increasing Army officers' pay. Belgian coast fighting continues in a desultory fashion.

NOVEMBER 25TH.—Allies gain ground north-east of Ypres. The Vistula-Warta battle still raging.

NOVEMBER 26TH.—H. M. S. "Bulwark" blown up accidentally in the Medway. Russians pressing the German forces, which are stated to be surrounded near Lodz.

Allies repulse an attack at Missy, on the Aisne. Arras bombarded.

NOVEMBER 27TH.—Russian operations developing successfully. The Belgian battle line comparatively quiet. Rheims Cathedral again shelled. Mr. Churchill states that by the end of 1915 Britain would have 15 new Dreadnoughts, against three possible new ones for Germany.

NOVEMBER 28TH.—Russian successes in the advance on Cracow. Germans concentrating on Arras.

NOVEMBER 29TH.—Perceptible progress made by the Allies, who repulsed attacks north of Arras and in the Vosges. King George crossed to France.

NOVEMBER 30TH.—The Germans made some fruitless attacks in the Argonne, otherwise nothing occurred.

DECEMBER 1ST.—King George and President Poincaré visited the British forces and an Indian hospital in France. King George invested General Joffre with the G. C. B. The Allies captured the park and *chateau* of Vermelles. De Wet and his 52 remaining followers captured in S. Africa. Hard fighting round Lowicz and in central Servia.

DECEMBER 2ND.—King George invested General Foch with the G. C. B. and 7 French Generals with the G. C. M. G. The French captured Aspach, S. E. of Thann in Alsace. Russians began to bombard Cracow. British aeroplanes reported Sinai peninsula clear of Turks.

DECEMBER 3RD.—King George conferred the Order of Merit on General French. The French captured Burnhaupt in Alsace and advanced in the direction of Altkirch.

DECEMBER 4TH.—King George invested King Albert of Belgium with the Order of the Garter.

DECEMBER 5TH.—King George returned to London. The Allies gained a footing on the right bank of the Yser R. between Dixmude and Ypres. Allies' aviators attacked aviation sheds at Freiburg in Baden. Russians evacuated Lodz. Battle commenced S. E. of Cracow.

DECEMBER 6TH AND 7TH.—No change in the situation.

DECEMBER 8TH.—German offensive in the Mlawa region slackening. The Servians took the offensive along their

whole front. General Beyers, the leader of the Transvaal revolt drowned in crossing the Vaal. R. A British squadron off the Falkland Islands sunk the German cruisers "Scharnhorst," "Gneisenau," "Leipzig" and "Nürnberg"; British casualties 7 killed and 4 wounded, no British ships were sunk.

DECEMBER 9TH.—Hard fighting on the front Ilov-Lowicz.

DECEMBER 10TH.—French Aviators again attacked Freiburg and dropped 16 bombs on the station and aviation sheds. Germans repulsed from the Mlawa region. Hard fighting on the front Ilov—Lowicz. Russians captured several German guns and 2,000 prisoners S. of Cracow. Servians recaptured Lazarietatz. General von Falkenhayn appointed Chief of the German General Staff *vice* General von Moltke.

DECEMBER 11TH.—Austrian advance commenced in the Carpathians. Servian pursuit of the Austrians continued and 20 guns and 2,220 prisoners captured. The "Goeben" and a Turkish gunboat fired 15 shots into Batoum.

DECEMBER 12TH.—No change in the situation.

DECEMBER 13TH.—German offensive in Alsace repulsed. British submarine B-11 entered the Dardanelles, traversed the minefield, sunk the Turkish ironclad "Messudieh" and made its way out untouched.

DECEMBER 14TH.—Hard fighting continued on the front Ilov-Lowicz.

DECEMBER 15TH.—The Servians reoccupied Belgrade.

NOTE.—The above is an attempt to compile a diary of the war from the material available in India up to the 15th December. It does not profess to be complete or absolutely accurate.

Diary of the War.

(xxi)

INDIAN ARMY CORPS.

Narrative of events to 20th November 1914.

Prior to the arrival of the Indian Army Corps in the concentration area, the British Forces north and south of the LYS had resisted repeated desperate attacks, by numerically far superior German forces, with the utmost gallantry, and had counter-attacked effectively on every possible occasion.

Troops of the Indian Army Corps arrived in the concentration area in time to relieve the pressure south of the LYS, and to take the place of some of their British comrades who needed a rest. They were also able to release troops south of the LYS for operations north of that river, where the British forces in the direction of YPRES have covered themselves with glory by withstanding a desperate and prolonged German effort, inspired by the Kaiser himself, to break through our line at all costs. The task of the Indian Army Corps was to pull as great an enemy weight as possible, in order to prevent the Germans south of the LYS from sending away troops to assist in the attack against our British comrades north of the LYS. This task has been fulfilled most successfully, as will be seen from the estimates printed below of the German forces which we, reinforced by a British Brigade, held in front of our line for nearly three weeks.

The Lahore Division detrained in the concentration area on October 19th and 20th, and sent two battalions (the 57th Rifles and the 129th Baluchis) of the Ferozepore Brigade almost immediately to be at the disposal of the Cavalry Corps. Both these battalions had very heavy fighting and

rendered excellent services, for which they were thanked by the G O. C. Cavalry Corps. The remainder of the Division marched to the area now occupied by the Indian Corps. By the night October 24th-25th the Division had become engaged in the fighting on the line which was at the time held by the IInd Corps. On October 28th, half the 47th Sikhs, both companies of the divisional Sappers and Miners, and some other troops took part in the heavy fighting at NEUVECHAPELLE. There they distinguished themselves by a well conducted counter-attack, by which they drove the Germans out of a great part of the place with the bayonet. On emerging from the village, however, they were exposed to the concentrated fire of machine guns, and had to remain contented with what they had gained. During the same morning the enemy attacked, under cover of the usual heavy bombardment, but each effort was repulsed with heavy loss. One of our trenches was carried and then recovered after sharp losses had been inflicted on the enemy.

The Meerut Division detrained in the concentration area on the 28th-29th Oct., and the Indian Corps proceeded to take over the line held by the IInd Corps. The advent of our Corps was the signal for the enemy to try the effect of their heavy artillery. It was at this juncture, also, that we experienced for the first time the action of the *Minenwerfer*, or trench mortar. We have countered with mortars constructed by our Sappers and Miners. Out of the first 12 bombs fired yesterday (November 19th), 5 landed direct in the enemy's trenches.

A specially determined shell attack was made against the 2-2nd Gurkhas on November 2nd, which did a good deal of material damage to the trenches. The enemy found, however, that in spite of the heavy bombardment he had inflicted on us, the Gurkha was an unpleasantly determined individual to meet in the counter-attack which ensued.

NOVEMBER 5TH.—Two battalions of the 8th British Brigade attacked and drove some Germans out of trenches close to their front, at 12-15 a. m.

NOVEMBER 9TH.—The Black Watch re-captured an old trench of ours, bayonetting the occupants.

NOVEMBER 9TH & 10TH.—During the night the 2-39th Garhwalis made a successful assault on the enemy's trench in their front, and captured some prisoners.

NOVEMBER 10TH.—The Sappers and Miners of the Meerut Division exploded a mine in a German trench opposite the Bareilly Brigade, killing the occupants. Half of the body of a German officer was blown into one of our trenches.

NOVEMBER 13TH.—The Garhwal Brigade attacked the enemy's trenches at 9 p. m., drove out the occupants, and captured a few prisoners.

NOVEMBER 16TH.—The 6th Jats and half No. 3 Company, Sappers and Miners, attacked successfully two German sap-heads, which had been driven close up to the trenches held by the Bareilly Brigade. A prisoner was captured, as well as some bombs, and an earth augur which the enemy use in driving forward their mines.

There have, of course, been other local enterprises, which reflect great credit on the determination of the troops not to maintain a purely defensive attitude, and a lot of useful work has been done by individual scouts, who have gone out every night to see what was doing in the enemy's trenches. The information obtained as a result of these enterprises has been of great value, and has enabled G. H. Q. to make an accurate estimate of the composition and strength of the enemy's troops who are opposed to us.

The Intelligence Section of the General Staff at G. H. Q. has expressed its appreciation of the successful efforts of the troops in provision of this information.

Many acts of gallantry have been performed by British and Indian officers, and by other British and Indian ranks. These will be duly reported by the Army Corps Commander who has already specially promoted the following men to the rank of Havildar for intelligent and daring scouting:—

Naik Bhagat Singh, 47th Sikhs.

Naik Jehandad, 58th Rifles.

The following is an estimate of the German forces opposite the line ROUGES BANCS—GIVENCHY, on 20-II-14:—

		War Establishment.		
		Rifles.	Sabres.	Guns.
XXIV Reserve Corps, 48th Reserve Divn.				
1 Reserve Regiment	...	3,000	—	—
VII Corps, 13th Divn., 25th and 27th Bdes.	12,000	500	80	
" " 14th Divn., 79th Bde.	...	6,000	250 ?	40 ?
XIV Corps, 29th Divn., 58th Bde.	...	6,000	250 ?	40 ?
" " 84th Bde., 1 Regiment (170th)	...	3,000	—	—
" " 28th Divn., 56th Bde. 1 Regt. (40th)	3,000	—	—	
XIth Corps, 11th Jaegar Battalion (?)	...	1,000	—	—
TOTAL		...	34,000	1,000 ? 160 ?

UNITED SERVICE INSTITUTION OF INDIA

APRIL 1915.

SECRETARY'S NOTES

I.—New Members.

The following members joined the Institution between the 1st December 1914, and the 1st March 1915, inclusive:—

LIFE MEMBERS.

P. Biggane, Esq.

ORDINARY MEMBERS.

Lieut. R. Dane.
 Captain D. J. M. Campion.
 Doctor G. T. Walker.
 Captain G. Beach.
 Captain W. E. Schofield.
 Captain G. D. Ogilvie.
 R. A. Fitzherbert, Esq.
 Captain G. Airy.
 J. W. Meares, Esq.
 Lieut. H. R. Cox.
 P. Hawkins, Esq.
 Captain F. H. Bowden.
 A. J. R. Hope, Esq.
 J. E. Lacey, Esq.
 Lt.-Col. E. Eckersley.

Lt.-Col. C. N. Baker.
 Major H. G. Le Mesurier.
 Colonel J. Dallas.
 J. H. Johnston, Esq.
 Major G. F. Sheehan.
 H. St. J. B. Philby, Esq.
 F. E. Down, Esq.
 Lieut. O. Mather.
 Lieut. B. G. White.
 Major D. Ogilvie.
 P. C. Young, Esq.
 V. Bayley, Esq.
 Lieut. H. P. Radley.
 G. B. H. Fell, Esq.
 Major F. N. White.

II.—Tactical Problems.

In order to assist officers, tactical schemes are issued by the Council of the Institution, to members only, at Rs. 5 per scheme, which include criticisms and solutions by fully qualified officers selected by the Council. 26 schemes are now available.

A number will be allotted to each member with his papers, and solutions must be sent under these numbers to the Secretary, Simla.

III.—Military History Papers.

(i) In order to assist officers in the study of military history, the Institution has for issue, to members only, sets of questions on selected campaigns. The following papers are now available:—

- (a) One paper on the Waterloo Campaign.
- (b) Three papers on Callwell's Small Wars.
- (c) Two papers on the strategy of the Russo-Japanese War,
- (d) Five papers on the battles of the Russo-Japanese War.

(ii)

Secretary's Notes.

- (e) Two papers on the Afghan War, 1879-80.
- (f) Two papers on the Crimean War.
- (g) One paper on the Indian Mutiny.
- (h) One paper on the Shenandoah Valley Campaign, 1861-62.
- (i) One paper on the Bohemian Campaign, 1866, to the Battle of Koniggratz, inclusive.
- (j) One paper on the Jena Campaign, 1806.
- (k) One paper on the Franco-German War, 1870.

The charge for these papers is Rs. 5 each, which includes criticism by fully qualified officers selected by the Council. A number will be allotted to each member with his papers, and answers must be sent under these numbers to the Secretary, Simla.

(ii) Pamphlets dealing with the Shenandoah Valley Campaign from April 1861 to June 1862, the Bohemian Campaign, 1866, to the battle of Koniggratz, inclusive, and the Battle of Liouyang, can be obtained from the Secretary, Price Re. 1 each, or Re. 1-2-0 per V.P.P.

IV.—Premia for Articles in the Journal.

As it does not seem to be generally known that articles are paid for, members are informed that a sum of approximately Rs. 400 is awarded for articles and reviews published in each Quarterly Journal.

V.—Library Catalogue.

The library catalogue revised up to 1st November 1912 is available. Price of catalogue Re. 1, or Re. 1-4-0 per V. P. P. A new catalogue is being compiled which it is hoped will be ready in May. List of Books since received are published quarterly with the Journal.

VI.—Northern and Southern Army Prize Essays.

The Council will award the sum of Rs. 150 each, on the usual conditions, for the best essays sent in from members of the Northern and Southern Armies by the 31st December 1915, on the following subjects selected by Army Commanders.

Northern Army.—"The provision of a reserve of officers for the Indian Army for future campaigns.

Southern Army.—(1) Under modern conditions, when a state of war exists, how to deal with a hostile alien population in our midst or

(2) Discuss the question of Reserves for the Indian Army in time of war. Do the present regulations on the subject in your opinion require any modifications?

VII.—Gold Medal Prize Essay, 1914-1915.

The Council have chosen as the subject for the Gold Medal Essay for 1914-15 the following:—

"Recognising that the Domiciled Community of India is of value for military purposes, what is the best method of utilizing it? Give suggestions for its organization and training."

N. B.—The term "*Domiciled Community of India*" is intended to include all Europeans and Eurasians permanently domiciled in India.

Secretary's Notes.

(iii)

The following are the conditions of the competition :—

- (1) The competition is open to all gazetted officers of the Civil Administration, the Navy, Army, and Volunteers.
- (2) Essays must be printed or type-written and submitted in duplicate.
- (3) When a reference is made to any work, the title of such work is to be quoted.
- (4) Essays are to be *strictly anonymous*. Each must have a motto, and enclosed with the essay there should be sent a *sealed* envelope with the motto written on the outside and the name of the competitor inside.
- (5) Essays will not be accepted unless received by Secretary on or before the 30th June 1915.
- (6) Essays will be submitted for adjudication to referees chosen by the Council. No medal will be awarded if the Council consider that the best essay is not of a sufficient standard of excellence.
- (7) The name of the successful candidate will be announced at a Council Meeting to be held in August or September 1915.
- (8) All essays submitted are to become the property of the United Service Institution of India, *absolutely*, and authors will not be at liberty to make any use whatsoever of their essays without the sanction of the Council.
- (9) Essays must not exceed 15 pages of the size and style of the Journal, exclusive of any appendices, tables or maps.

VIII.—Contributions to the Journal.

With reference to Army Regulations, India, Volume II, paragraph 483, and King's Regulations, paragraph 453, as amended by Army Order 340 of 1913, intending contributors to the Journal of the United Service Institution of India are informed that action to obtain the sanction of His Excellency the Commander-in-Chief to the publication of any article in the Journal of the United Service Institution of India will be taken by the Committee. Contributors are, therefore, responsible that the sanction of their immediate superior has been obtained, and this should be noted on all articles sent for publication. Articles need not be submitted in duplicate.

Contributors are requested to have their articles either typed or printed.

IX.—The Institution is prepared to supply members and units with manuscript type-written or printed pages from old Army Lists since 1800. Endeavours will also be made to procure extracts from the "Registers" prior to that date. The following will be the rates charged :—

Manuscript copy of each page	...	...	Re. 1 0 0
Typewritten or printed copy,* per page	...	...	Rs. 2 0 0
Binding if required	...	...	Extra.

* If facsimile of *type* is required the price of printed pages will range from Rs. 5-8 to Rs. 2-12 per page, according to the amount of matter on each page. The higher rate being charged for pages similar to those of the Indian Army in the current Army List.

X.—War Map.

War Maps are on view in the Reading Room of the Institution, with the position of the troops, so far as is known, marked with flags.

(iv)

XI.—Gold Medal Prize Essay.

Any member who wishes to suggest subjects for the Gold Medal Prize Essay 1915. Should submit them to the Secretary not later than the 1st June.

XII.—Members.

Who wish to bring forward any proposals for discussion at the Annual General Meeting are reminded that they must inform the Secretary in time to give the notice required by Rule V. (12.)

XIII.—Journal for January 1915.

General May's Article on "Artificial Aids to Training." It is much regretted that by a mistake in printing, some copies of the Journal for January 1915, had pages 66 and 67 omitted and pages 65 and 63 printed twice over. Any member whose copy contained this defect, will be sent a correct copy on application.

XIV.—Accounts for 1914.

A copy of the accounts for the year 1914 passed by the auditor is enclosed with each copy of the April Journal. It will be noticed that there is a considerable falling off in revenue, much of which may be attributed to the war. But it is regretted that the arrears of subscriptions due by members shows a tendency to increase.

XV.—Bad debts and Arrears

The Committee have had to strike off the sum of Rs. 1741-8-0 on account of various small sums due by members which they have not been able to recover, so the names of the defaulting members have been struck off the roll of members and it has been decided to post their names in the Reading room for 6 months and to amend the rules to provide for this in future.

XVI.—Annual Subscriptions.

The Committee wish to invite the attention of members to the large amount of unnecessary correspondence and expense annually caused to the Institution by the difficulty in getting in the annual subscriptions. If members wish to resign their membership they have only to notify the fact in writing to the Secretary. If this is not done, it is presumed that they wish to remain members and the journal is regularly posted to their last known address.

Much inconvenience and unnecessary correspondence is also caused by the failure of members to notify their changes of address or to make any arrangements for the Journal to be sent after them, when they change their address.

The remedy for both these matters lies with members themselves, and it is for their consideration whether they agree to continue supplying the Journal to those who have not paid their subscriptions and to have the time of their staff largely taken up in issuing reminders and trying to trace addresses.

Diary of the War.

(v)

Up to the 15th March 1915.

28TH JUNE 1914. The Archduke Franz Ferdinand of Austria assassinated at Serajevo in Bosnia.

23RD JULY. Austrian ultimatum to Serbia, asking for an answer within 24 hours.

24TH JULY. Russian note to Austria asking for an extension of the period for the answer by Serbia.

27TH JULY. Austrian mobilisation commenced.

28TH JULY. Austria declared war on Serbia.

29TH JULY. British fleet sailed from Portland, precautionary stage ordered throughout the British Empire. Austrians bombarded Belgrade.

31ST JULY.—Russian mobilisation commenced. Martial law proclaimed in Germany.

1ST AUGUST. Germany declared war on Russia. Italy declared her neutrality. Germany invaded Luxemburg.

2ND AUGUST.—French mobilisation commenced at midnight 1st—2nd. German cruiser bombarded Libau.

3RD AUGUST.—German ultimatum to Belgium. War declared between France and Germany.

4TH AUGUST.—Neutrality of Belgium violated. German fleet passed through the Kiel canal into the North Sea. Turkish mobilisation commenced. Great Britain declared war on Germany. Germany promised to observe the neutrality of Holland.

5TH AUGUST.—British mobilisation commenced at midnight 4th—5th. Germany declared war on Belgium. Declarations of neutrality by the United States, Sweden, Roumania and Turkey. Germans attacked Liege. German cruiser "Breslau" bombarded Bona in Algeria. Lord Kitchener appointed Secretary of State for War. 7th German Army Corps repulsed at Liege.

6TH AUGUST.—Renewed fighting round Liege; two forts silenced. General Leman taken prisoner while insensible. H. M. S. Amphion mined and sunk, 131 men lost. £100,000,000 and 500,000 men voted for the war. Austria declared war on Russia.

7TH AUGUST.—Spain declared her neutrality. German mobilisation of obsolete ships at the Baltic ports.

8TH AUGUST.—Capture of Altkirch by the French. Allied French and British forces invaded German Togoland.

9TH AUGUST.—British cruiser "Birmingham" sunk a German submarine. French occupy Mulhausen. Servia declared war on Germany. Japanese fleet put to sea. Russian troops invaded Austrian territory.

10TH AUGUST.—France declared war on Austria. Germans entered Liege town, the forts still holding out. Bombardment of Antivari by the Austrians.

11TH AUGUST.—French retired from Alsace. The German cruisers "Goeben" and "Breslau" entered the Dardanelles, Montenegro declared war on Germany.

12TH AUGUST.—Germans bombarded Pont-a-Mousson. Great Britain declared war on Austria. The sale of the "Goeben" and the "Breslau" to Turkey announced. The German Government announced its intention to take the people's savings, £1,500,000,000 in case of need. Germans repulsed at Haelen.

13TH AUGUST.—Belgian successes at Eghezee and the R. Othain. Russians captured Sokol in Galicia. Liege forts fell.

14TH AUGUST.—Reported destruction of a Zeppelin near Nancy. French Army announced as being in touch with the Belgians. Belgian success at Goet Betz.

15TH AUGUST.—The British cruiser "Pegasus" bombarded Dar-es-Salaam. Japanese ultimatum to Germany demanding evacuation of Kiao-chau. Battle of Dinant, Germans repulsed. French invade German Lorraine. Russian Proclamation issued promising the reconstitution and autonomy of the Kingdom of Poland.

16th AUGUST.—Minor French successes at Avricourt, Cirey and Dinant. British Expeditionary Force completed its landing in France.

17th AUGUST.—Austrian cruiser "Zenta" sunk by the French in the Adriatic.

Germans attacked Taveta in British East Africa. Belgian Government moved to Antwerp.

18th AUGUST.—French occupied Colmar and advanced to near Shirmack and Saarburg. Russian mobilisation completed. Servians defeated Austrians at Shabatz and Loznitz. Germans captured Diest and Tirlemont.

19th AUGUST.—German position ran from Neufchateau to Dinant, and they pushed large force across the R. Meuse between Liege and Namur, their cavalry reached the R. Dyle. French reoccupied Mulhausen and took Guebwiller. Russians occupied Gumbinnen. Reports received of a mutiny of Czech troops at Prague.

20th AUGUST.—Germans occupied Brussels. Belgian army retired into Antwerp, their rearguard suffering heavily. Austrians attacked Krasnik.

21st AUGUST.—Germans occupied Alost, Wetteren and Ghent. Russians occupied Lyck. Battle of Charleroi between French and Germans commences. German invasion of S. Africa, French reverse on R. Seille.

22nd AUGUST.—British holding the line Condé-Mons-Binche opposed by 2 German Army Corps, the French continuing the line through Charleroi to Dinant. Germans attacked Namur. Russians occupied Goldapp. French driven from Charleroi.

23rd AUGUST.—British still holding the line Condé-Mons-Binche, in the evening it was ascertained that 3 German Army Corps were moving frontally against them and a fourth Army Corps was advancing to turn their left from Tournai. The Germans had succeeded in forcing the passage of the R. Meuse at Givet and the French were falling back to the line Valenciennes-Maubeuge.

Japan declared war on Germany. Russians captured Arys, Soldau and Insterburg.

24TH AUGUST.—The Anglo-French Army fell back to the line Lille—Valenciennes—Maubeuge—Mezières. Namur fell. Germans occupied Luneville. Russians occupied Johannesburg, Ortelsburg, Willenburg, Heidenburg and Arys.

25TH AUGUST.—The Allied left wing fell back to the line Cambrai—Le Cateau—Landrecies, Sortie by the Belgians from Antwerp to Malines. Destruction of Louvain, Commencement of battle of Lemberg.

26TH AUGUST.—The retirement of the British Expeditionary forces from the line, Cambrai—Le Cateau very severely pressed. Togoland surrendered. Russians occupied Nordenburg, Sensburg and Bishofsburg in E. Prussia, Tarnopol in Galicia.

27TH AUGUST.—“Kaiser Wilhelm der Grosse” armed merchantmen, sunk by H. M. S. “Highflyer.” British Marines occupied Ostend. Allies left still retiring. Russians captured Rothfleiss near Allenstein in E. Prussia. Russians defeated the Austrians on the R. Zlota Lipa. French and British fleets bombarded Cattaro. German cruiser “Magdeburg” destroyed in the Baltic.

28TH AUGUST.—The British beat off German attacks and reached the line Noyon—Chauny—La Fère—Laon. Cruiser action off Heligoland, Germans lost 3 small cruisers and 2 destroyers, British lost no ships. Russians occupied Allenstein.

29TH AUGUST.—Russians invested Königsburg and were engaged at Graudenz and Thorn. French repulsed 3 German Corps at Guise.

30TH AUGUST.—The Allies in France held the line from the mouth of the R. Somme—La Fère—Laon—Mezières and gained a success at St. Quentin. The 5th and 7th French Army Corps took up their position on the left of the British. Austrians invade Russian Poland.

AUGUST 31ST.—Allies retire to take up the line of the Seine, the Oise, and the Upper Meuse. Russians under General Samsonoff defeated at Osterode, Germans claim to have destroyed or captured three Army Corps.

1ST SEPTEMBER.—German attacks on the Allies left which had ceased since 28th August, were renewed. British

checked a German cavalry corps at Compiègne and captured 10 guns. Germans advanced on Antwerp capturing Malines, Termonde and St. Nicholas. Fortification of Brussels commenced. British losses to date 15,000.

2ND SEPTEMBER.—Fresh German troops drove back the Russians in E. Prussia. After 7 days' battle near Lemberg the Russians defeated the 3rd, 11th and 14th Austrian Corps, Austrian losses 130,000 men and 200 guns.

3RD SEPTEMBER.—French Government transferred to Bordeaux. The 1st German army ceased its advance on Paris and turned south-east; passed through Rheims to La Ferte Sousjoularre. 2nd Army reached Chateau Thierry, the 3rd Army the line Suippe—Ville Jourbe.

Russians occupied Lemberg.

4TH SEPTEMBER.—The Belgians opened the dykes and flooded out a German force near Termonde.

5TH SEPTEMBER.—The Germans crossed the R. Marne. Germans sank 15 fishing boats in the North-Sea.

Russians and Austrians engaged on the line Lublin-Kholm. Bombardment of Maubeuge.

6TH SEPTEMBER.—The Germans reached the line Coulommiers—La Ferte Gaucher—R. Morin—Vitry—Verdun. They withdrew their troops from north-west France. H. M. S. "Pathfinder" was torpedoed in the North-Sea.

Montenegrins gained a success at Boljanitsa in Herzegovina.

7TH SEPTEMBER.—The Allies left wing, British and 2 French Army Corps, attacked the Germans on the R. Ourcq, guarding the right rear of the German main forces. The German line was R. Ourcq—R. Petit Morin—Montmirail—Petit Somme puis—Vitry—Sermains-les-Bains. Maubeuge fell.

Russians in E. Prussia succeeded in beating off the Germans on the line Nordenburg—Goldapp—Suwalki.

8TH SEPTEMBER.—Germans fell back to the R. Marne. The "Oceanic" wrecked on the N. Coast of Scotland. Russians in Galicia captured Mikhailov and engaged the Austrians at Rawa-Ruska.

Diary of the War.

9TH SEPTEMBER.—6th French Army Corps engaged Germans on the R. Ourcq, British drove the Germans across the R. Petit Morin and R. Marne.

10TH SEPTEMBER.—Servians occupied Semlin. 5th French Army Corps reached Chateau Thierry; British at Dormans on the Marne took 1,500 prisoners, 4 guns and 6 maxims. 60,000 Germans transferred from Belgium to France.

Belgians advanced to Wetteren.

Russians and Austrians engaged on the line Rawa Ruska—Tomashov—Krasnik.

German fleet seen in the Baltic.

German attack on Karonga in British Nyassaland.

11TH SEPTEMBER.—Germans on a front Soissons—Braisne—Fismes—Rheims—north of Vitry—Champenoux—Rehainvillers—Guebwiller.

French success at Saint Dié capturing 15 guns.

Australians occupied Herbertshöhe in the Bismarck Archipelago. Turkey announced the abolition of the Capitulations.

12TH SEPTEMBER.—Germans fell back to the line Soissons—Craonne—Rheims—St. Ménéhould—North of Verdun, losing 160 guns. Beginning of battle of the R. Aisne.

Belgian sortie from Antwerp. Great Russian victory over General von Auffenberg's army in Galicia.

SEPTEMBER 13TH.—German invasion of British East Africa announced. German cruiser "Hela" sunk by British submarine E-9. Allies force the passage of the Aisne near Soissons. Germans defeated by Russians on the Niemen near Sredniki.

SEPTEMBER 14TH.—German Headquarters in France removed from St. Ménéhould to Montfaucon. Imperial Crown Prince's Army in retreat. The Russians across the lower San. The British auxiliary cruiser "Carmania" sinks a German armed cruiser, the "Cap Trafalgar."

SEPTEMBER 17TH.—Russian official reports record the utter rout of the Austrian Army in Galicia, with losses of 250,000 killed and wounded, 100,000 prisoners, 400 guns and flags and stores.

SEPTEMBER 20TH.—Bombardment of Rheims Cathedral. H. M. S. "Pegasus" is completely disabled while at anchor in Zanzibar Harbour by the German cruiser "Konigsberg." The Admiralty state that between September 10 and September 14 the German cruiser "Emden" has captured six British ships in the Bay of Bengal, sinking five of them.

SEPTEMBER 21ST.—"Violent fighting" continues in the Craonne district. The French Government sends a protest to the neutral Powers against the wanton destruction of Rheims Cathedral.

SEPTEMBER 22ND.—The British cruisers "Aboukir," "Hogue," and "Cressy," sunk by a German submarine in the North Sea.

SEPTEMBER 23RD.—The Admiralty announce that a raid on the Zeppelin airship sheds at Dusseldorf has been carried out by the British Naval Wing. Violent combats have taken place on the banks of the Oise.

SEPTEMBER 24TH.—A British Expeditionary Force arrives at Laoshan Bay to participate in the movements against the Germans at Tsingtau.

SEPTEMBER 25TH.—The Australian forces announce their occupation of the seat of government of Kaiser Wilhelm's Land in German New Guinea.

SEPTEMBER 26TH.—German forward movement against Antwerp begins with a fresh advance upon Malines. The Russians push their advantage in Galicia, and establish their position on the railway to Cracow. Indian Expeditionary Force lands in France.

SEPTEMBER 27TH.—Germans occupy Malines.

SEPTEMBER 28TH.—Heavy artillery fire opened by Germans on the Waelhem-Wavre St. Catherine sector of the Antwerp defences.

SEPTEMBER 29TH.—Magazine at Fort Waelhem blown up. Little advance reported on either side at the front. Admiralty announces sinking of four British steamships and a collier by the German cruiser "Emden."

SEPTEMBER 30TH.—Fort Waelhem and the Antwerp water-works destroyed.

OCTOBER 1ST.—Germans, having temporarily silenced the Koningshoeyck and Lierre forts, attempt to rush the Belgium trenches, but are repulsed. Italian Government protests against Austrian mine-laying in neutral waters.

OCTOBER 2ND.—Belgians retire across the Nethe, blowing up the Waelhem Bridge. Admiralty state that H. M. S. "Cumberland" has captured nine German liners and a gunboat off the Cameroon River (West Africa).

OCTOBER 3RD.—Fifteen German Army Corps advancing into Russia from Silesia. Admiralty notifies the laying down of a defensive mine-field in the North Sea.

OCTOBER 4TH.—The 23rd day of the Battle of the Aisne, now the longest battle in history. Bombardment of Antwerp continues, with terrific fire upon Lierre. Russians capture Augustovo.

OCTOBER 5TH.—Allies resume the offensive on their left wing. Main Russian Army posted on the Middle Vistula. Strength of the Germans and Austrians in this theatre estimated at about 88 Army Corps, and of the Russians at 100, not less than four million men to engage in impending battle. Germans thrice repulsed in their attempts to cross the Nethe near Antwerp, and British reinforcements arrive.

OCTOBER 6TH.—Belgian Government, with the Legations and Consulates of the Allied Powers, withdraw from Antwerp. Germans endeavour to break across the Scheldt in order to cut off the retreat of the Antwerp garrison. Violent indecisive fighting north of the Oise. Colonial Office announces frontier engagements in British East African Protectorate, and defeat of the Germans in every case.

OCTOBER 7TH.—Antwerp evacuated by the Allies. The Germans cross the Scheldt at Termonde, Schoonaerde, and Wetteren. Russians moving all along the front, with Rennenkampf following up the retreat of the defeated German Army. Japanese occupy capital of Marshall Islands in the Pacific.

OCTOBER 8TH.—Allies' left wing still lengthening northwards. Belgians destroy the petrol stores at Antwerp. Sub-

marine E-9 (Commander Max K. Horton) sinks a German destroyer (S 126) at the mouth of the Ems. Canada to send a second expeditionary Force (10,000 men).

OCTOBER 9TH.—Antwerp occupied by the Germans, Belgian field army and British Naval Division retired on Ostend.

OCTOBER 10TH.—The flank battle in the Arras district continues. Naval airman successfully raid the Zeppelin sheds at Düsseldorf, their bombs causing flames some hundreds of feet high. Russians invade Hungary. Death of King Carol of Rumania.

OCTOBER 11TH.—Progress in parts of the Allied lines. fighting on the East Prussian frontier. Germans driven back towards Masurian Lakes. German airmen dropped 20 bombs on Paris.

OCTOBER 12TH.—News received that 2,000 British and many Belgian troops, on leaving Antwerp, went into Holland, and were interned.

OCTOBER 13TH.—Germans to levy £20,000,000 upon Antwerp, bringing total war indemnities they have demanded to £48,000,000 to date. Russian cruiser "Pallada" sunk in Baltic by German submarine. The Belgian Government withdraws to Le Havre, in France. Germans occupy Ghent. Fighting near Bruges. Twenty-eight Austro-German Army Corps reported to be operating in Poland. Lieut.-Colonel Maritz, in command of a detachment of Union forces on the Orange River, rebels and goes over to the enemy. Martial law proclaimed in South Africa.

OCTOBER 14TH.—Germans move towards coast. French Armies progressing in the Arras area. Allies occupy Ypres.

OCTOBER 15TH.—H. M. S. "Hawke" sunk by German submarine in North Sea.

OCTOBER 16TH.—Germans advance towards Bruges and Ostend. Allies make notable progress in the Lens district. Russians fighting on a front from Warsaw to Przemyśl and Dneister. Canadian troops arrive in England. Southern Rhodesia raises 1,000 men H. M. S. "Yarmouth" sinks the Emden's collier, the "Markomannia."

OCTOBER 17TH.—Allies operating between Ypres and the coast. Germans driven back near Warsaw. H. M. S. "Undaunted" and destroyers sink four German destroyers off the Dutch coast.

OCTOBER 18TH.—Fight for Northern France shows no substantial development. British ships begin to take part in the coast battle.

OCTOBER 19TH.—Allies drive back the Germans 30 miles. Cholera increasing in Hungary.

OCTOBER 20TH.—Reported southward movement of fresh German troops towards French frontier.

OCTOBER 21ST.—The Allies make progress at various points, the Belgians withstanding attacks on the Yser.

OCTOBER 22ND.—Germans in flight from Warsaw. "Violent fighting" in Ostend-Nieuport area. Further losses due to raids by the German cruiser "Emden."

OCTOBER 23RD.—Heavy fighting on French and Belgian coasts. Russians completely repulse German advance on Warsaw. The Admiralty announce that Submarine E-3 is overdue, and probably lost. (A German "wireless" reported that this vessel had sunk on October 18.)

OCTOBER 24TH.—German "life or death" struggle towards Calais continues, Germans forces being well held.

OCTOBER 25.—Admiralty announce the destruction of a German submarine by H.M.S. "Badger." Desperate fighting continues on the Franco-Belgian coast.

OCTOBER 26TH.—Favourable reports of the Allied position at practically all points. An Admiralty *communiqué* indicates that the British monitors and other craft are rendering invaluable aid to the Allied operations against the German right wing.

OCTOBER 27TH.—The German rush in Northern France is stemmed, the Allies front between the coast and Dixmude being maintained. The Germans defeated before Warsaw, are beaten in rearguard actions. The rebel Maritz is totally defeated and flees into German territory. Portuguese naval reserves called up. The French liner Amiral Ganteaume,

with 2,500 refugees, who are rescued, was torpedoed in the channel by a German submarine.

OCTOBER 28th.—Severe fighting continues in Flanders. the enemy being thrust back and German batteries wiped out. Russians make marked progress in Poland. Rebellious movement in South Africa by General Christian de Wet in the north of the Free State, and by General Beyers in the Western Transvaal.

OCTOBER 29th.—On both fronts the Germans make no progress, General Botha routs Beyers in the Transvaal, and captures 80 men.

OCTOBER 30th.—The Allies gain ground at many points and repulse the intended move towards Dunkirk and Calais. Russians prevailing against both German and Austrian forces. Admiral H. S. H. Prince Louis of Battenberg resigns his position as First Sea Lord of the Admiralty. Admiral of the Fleet Lord Fisher appointed to succeed him. Turkey commits definite acts of hostility against Russia.

OCTOBER 31st.—Severe fighting and almost general advance of the Allies, but German offensive intensified. Turks bombard Odessa, and Beduin tribes violate the Egyptian frontier. More of Maritz's rebels captured in South Africa. H. M. S. "Hermes" sunk in the Straits of Dover by a German submarine. Further activity of the German cruiser "Emden" reported; sinks a Russian cruiser and a French destroyer at Penang. Saseno occupied by Italy, General bombardment of Tsingtau begins, and Indian troops join the Anglo-Japanese forces there.

NOVEMBER 1st.—Violent German attacks in Ypres region, all repulsed by Allies, who are also holding the enemy in the Argonne. Russians pursuing to Poland. Foreign Office statement issued describing recent provocative attitude of Turkey. General bombardment of Tsingtau continues. H. M. S. "Monmouth" and H. M. S. "Good Hope" sunk in an action on the Chilean coast.

NOVEMBER 2nd.—The Admiralty give notice that the whole of the North Sea must be considered a military area.

German offensive continues on Franco-Belgian frontier, the Kaiser being present.

NOVEMBER 3RD.—Allies maintain their positions, and Petrograd reports successes on East Prussian frontier, British and French squadron bombards the Dardanelles forts. German cruisers attack H. M. S. "Halcyon," a coastguard gunboat patrolling off Yarmouth, and scatter mines, one of which destroys H. M. S. Submarine D5.

NOVEMBER 4TH.—Belgian reports of great eastward move of German troops. Russians compel Germans to retire on East Prussian front. The German cruiser "Yorck" destroyed by a mine near Wilhelmshaven. British reverse in German East Africa, casualties numbering 141 British officers and men.

NOVEMBER 5TH.—Great Britain declares war on Turkey "owing to hostile acts committed by Turkish forces under German officers." Cyprus annexed. Allies on the offensive again in the coast battle.

NOVEMBER 6TH.—The line of the San again in Russian hands. The Germans make no progress in the Franco-Belgian arena. Tsingtau central fort stormed, 200 prisoners being taken. Germans intern British subjects of military age.

NOVEMBER 7TH.—Fall of Tsingtau, taking of 2,300 prisoners (Japanese casualties in final assault, 440 killed and wounded; and previously during the siege, 200 killed and 878 wounded). Enemy well held in Flanders. Russians bombard two Black Sea ports.

NOVEMBER 8TH.—Rapid Russian advance in Prussian Poland. Allies advance along almost the whole line in Flanders. Admiralty report British raid in Persian Gulf.

NOVEMBER 9TH.—Allies make steady progress. Russians advancing rapidly. German cruiser "Geier" interned by U. S. A. at Honolulu. Artillery fight in Armenia, around Kuprukeui.

NOVEMBER 10TH.—The German cruiser "Emden" caught and destroyed by H. M. A. S. "Sydney" at Cocos Island. Another, the "Königsberg," is found hiding in a creek in German East Africa, and the navigable channel is blocked

to keep her imprisoned. Fierce fighting continues in Flanders. Russian success against the Turks.

NOVEMBER 11TH.—The King opens Parliament; Germans succeed in taking Dixmude. De Wet routed by General Botha.

NOVEMBER 12TH.—Russians well over the frontier of East Prussia. Allies continue to hold the enemy firmly, particularly fierce fighting around Ypres.

NOVEMBER 13TH.—The onslaught upon the British at Ypres slackens.

NOVEMBER 14TH.—Field-Marshal Lord Roberts dies of pneumonia while visiting France to inspect the Indian troops of which he was Colonel-in-Chief. German defeat near Ypres.

NOVEMBER 15TH.—Further attacks on Ypres repulsed, Russians levy on East Prussian towns war taxes proportioned to the German imposts in Belgium.

NOVEMBER 16TH.—The Allies retake position yielded some days ago. German advance from Thorn pushed back.

NOVEMBER 17TH.—The Chancellor of the Exchequer announces that a War Loan of £350,000,000 is to be raised, issued at £95. It will yield $3\frac{1}{2}$ per cent., and is redeemable at par not later than March 1st, 1928. Additional duties are imposed on tea and beer, and the income-tax is raised. No substantial recorded change on either the East or West fronts. Turks defeated at the head of the Persian Gulf.

NOVEMBER 18TH.—German squadron shells Libau. British divisions drive back German attacks, inflicting heavy losses on enemy. Russian Black Sea Fleet engaging "Goeben" and "Breslau," both of which disappeared, the former after an explosion aboard, and the latter without taking part in the fight.

NOVEMBER 19TH.—Funeral of Lord Roberts at St. Paul's Cathedral. Renewed activity of enemy in Flanders.

NOVEMBER 20TH.—General slackening of the attack in Flanders, and evident failure of five weeks' struggle towards Calais. Admiralty announce further extension of system of

mine defences, with compulsory pilotage in North Sea. The Bikanir Camel Corps beats off with only 20 men a considerable force of Turks on the coast some 30 miles from Port Said.

NOVEMBER 21ST.—Petrograd reports large German forces under General Hindenburg near Lowitz, towards Warsaw. The city of Basra, at the head of the Persian Gulf, occupied by British forces from India. British airmen raid the Zeppelin factory at Friedrichshafen, Squadron-Commander Briggs, R. N., being brought down and slightly wounded by the enemy.

NOVEMBER 22ND.—Enemy's activity in Flanders becomes intermittent, but French artillery attack fully sustained. Turks deny that the "Goeben" was seriously injured. Russians progressing in the Caucasus.

NOVEMBER 23RD.—Ypres in flames, belfry, Cathedral, and market damaged. The German submarine U. 18 rammed by a British warship off the North Coast of Scotland, the officers and crew being saved. Bombardment of Zeebrugge by a British Squadron, which inflicted tremendous damage on German positions. Portuguese Government is authorized by Congress to intervene in the war when and how it deems proper as Great Britain's Ally.

NOVEMBER 24TH.—Royal Warrant increasing Army officers' pay. Belgian coast fighting continues in a desultory fashion.

NOVEMBER 25TH.—Allies gain ground north-east of Ypres. The Vistula-Warta battle still raging.

NOVEMBER 26TH.—H. M. S. "Bulwark" blown up accidentally in the Medway. Russians pressing the German forces, which are stated to be surrounded near Lodz. Allies repulse an attack at Missy, on the Aisne. Arras bombarded.

NOVEMBER 27TH.—Russian operations developing successfully. The Belgian battle line comparatively quiet. Rheims Cathedral again shelled. Mr. Churchill states that by the end of 1915 Britain would have 15 new Dreadnoughts, against three possible new ones for Germany.

NOVEMBER 28TH.—Russian successes in the advance on Cracow. Germans concentrating on Arras.

NOVEMBER 29TH.—Perceptible progress made by the Allies, who repulsed attacks north of Arras and in the Vosges. King George crossed to France.

NOVEMBER 30TH.—The Germans made some fruitless attacks in the Argonne, otherwise nothing occurred.

DECEMBER 1ST.—King George and President Poincaré visited the British forces and an Indian hospital in France. King George invested General Joffre with the G. C. B. The Allies captured the park and *chateau* of Vermelles. De Wet and his 52 remaining followers captured in S. Africa. Hard fighting round Lowicz and in central Servia.

DECEMBER 2ND.—King George invested General Foch with the G. C. B. and 7 French Generals with the G. C. M. G. The French captured Aspach, S. E. of Thann in Alsace. Russians began to bombard Cracow. British aeroplanes reported Sinai peninsula clear of Turks.

DECEMBER 3RD.—King George conferred the Order of Merit on General French. The French captured Burnhaupt in Alsace and advanced in the direction of Altkirch.

DECEMBER 4TH.—King George invested King Albert of Belgium with the Order of the Garter.

DECEMBER 5TH.—King George returned to London. The Allies gained a footing on the right bank of the Yser R. between Dixmude and Ypres. Allies' aviators attacked aviation sheds at Freiburg in Baden. Russians evacuated Lodz. Battle commenced S. E. of Cracow.

DECEMBER 6TH AND 7TH.—No change in the situation.

DECEMBER 8TH.—German offensive in the Mlawa region slackening. The Servians took the offensive along their whole front. General Beyers, the leader of the Transvaal revolt drowned in crossing the Vaal. R. A British squadron off the Falkland Islands sunk the German cruisers "Scharnhorst," "Gneisenau," "Leipzig" and "Nürnberg"; British casualties 7 killed and 4 wounded, no British ships were sunk.

DECEMBER 9TH.—Hard fighting on the front Ilov-Lowicz.

DECEMBER 10TH.—French Aviators again attacked Freiburg and dropped 16 bombs on the station and aviation sheds. Germans repulsed from the Mlawka region. Hard fighting on the front Ilov—Lowicz. Russians captured several German guns and 2,000 prisoners S. of Cracow. Servians recaptured Lazarievatz. General von Falkenhayn appointed Chief of the German General Staff *vice* General von Moltke.

DECEMBER 11TH.—Austrian advance commenced in the Carpathians. Servian pursuit of the Austrians continued and 20 guns and 2,220 prisoners captured. The "Goeben" and a Turkish gunboat fired 15 shots into Batoum.

DECEMBER 12TH.—No change in the situation.

DECEMBER 13TH.—German offensive in Alsace repulsed. British submarine B-11 entered the Dardanelles, traversed the minefield, sunk the Turkish ironclad "Messudieh" and made its way out untouched.

DECEMBER 14TH.—Hard fighting continued on the front Ilov—Lowicz. The Servians reoccupied Belgrade.

DECEMBER 16TH.—German warships bombard West Hartlepool, Scarborough, and Whitby, killing and wounding a large number of people, chiefly women and children and escaping in the mist.

DECEMBER 17TH.—Egypt is placed under the protection of His Majesty, and will henceforth form a British Protectorate. Lieutenant-Colonel Sir Arthur Henry McMahon, G.C.V.O., K.C.I.E., C.S.I., to be High Commissioner. General advance in Flanders. Medal for Distinguished Conduct in the Field awarded to 187 non-commissioned officers and men.

DECEMBER 18TH.—Prince Hussein Kamel Pasha is appointed Khedive with the title of Sultan of Egypt, in the room of Abbas Hilmi Pasha, who is deposed for having adhered to the King's enemies.

DECEMBER 19TH.—The French Yellow Book is issued, Allied airmen drop bombs on Brussels airsheds.

DECEMBER 21ST.—The Victoria Cross is conferred on Lieutenant Holbrook, R.N., for his action in the Dardanelles.

DECEMBER 22ND.—Admiral Sir George A. Callaghan to be Commander-in-Chief at the Nore. The French Parliament

meets, and M. Viviani, the Prime Minister, reviews the causes and course of the war, and reaffirms the policy of the Allies—"the prosecution of the war until the liberation of Europe is secured by a completely victorious peace."

DECEMBER 23RD.—Russian successes in Galicia, and severe check to the Germans in Poland, Allies again gaining ground on the western front.

DECEMBER 24TH.—German aeroplane drops one bomb at Dover, making a hole in a garden. Squadron Commander Richard H. Davies, R. N., drops bombs on the Brussels airshed.

DECEMBER 25TH.—Seven British naval airmen, assisted by H.M.S. *Arethusa* and *Undaunted*, and submarines, attack enemy warships off Cuxhaven, and are opposed by two Zeppelins, three or four seaplanes, and by submarines. Flight Commander Francis E. T. Hewlett, R. N., missing, otherwise no casualties. A German aeroplane appears over Sheerness, but is driven away without inflicting damage. Zeppelins over Nancy.

DECEMBER 26TH.—German attacks successfully repelled by the Russians. The Austrians in flight in Galicia, abandon 10 quick-firing guns, 43 officers, and 2,500 men, and, in full retreat in the Carpathians, leave 10,000 as prisoners, French airmen drop bombs on the airship sheds at Frescati near Metz.

DECEMBER 28TH.—Turkish check in the Caucasus announced by Russia. Mines laid by Germany in the North Sea drift and destroy eight vessels.

DECEMBER 29TH.—The United States Government addresses a Note to Great Britain on the subject of the treatment of American commerce. Petrograd Headquarters Staff announces that during the second half of this month the Russians have captured 50,000 Austrians. An Amsterdam message states that after receiving a report of the damage done at Cuxhaven the Kaiser is supposed to have given the supreme command of his battle fleet to Prince Henry of Prussia.

DECEMBER 30TH.—German aeroplanes attack Dunkirk. Allies strengthen their hold on Ypres. Russians "progressing victoriously" in Galicia. British Government reduces the rate for insurance of cargo against enemy risks to the minimum.

DECEMBER 31ST.—Flight Commander Hewlett lands at Ymuiden, having been picked up by a Dutch trawler after the raid on Cuxhaven. Full text of the United States Government Note to Great Britain published. The French advance, especially between the Meuse and the Moselle. The King's Australian Forces take Bougainville, the largest of the Solomon Islands. New decoration, the Military Cross, instituted.

JANUARY 1ST.—H. M. S. Formidable is torpedoed by a German submarine in the English Channel; over 200 survivors landed. Violent artillery engagement on the dunes at Newport and Zonnebeke. An Army Order defines the new organization of armies, each consisting of three Army Corps.

JANUARY 2ND.—Prolonged rainfall impedes operations in Flanders. French make progress near Vermelles and gain a little ground at many points. Russians take Turkish positions in the Caucasus, win battles on the Bzura, and continue the advance in the Bukovina. A Nairobi cable reports successful operations at Dar-es-Salaam by H. M. S. Fox and Goliath. Turkish transport sunk by mine in the Bosphorus.

JANUARY 3RD.—Russians completely defeat Turkish forces concentrated at Ardahan in the Caucasus, destroying two Army Corps and capturing the Commander-in-Chief, divisional generals, staff, thousands of soldiers, and great quantities of material. French gain ground at St. Laurent and elsewhere. Cardinal Mercier, Archbishop of Malines, prevented by the Germans from reading his Pastoral Letter at Antwerp, and stated to have been arrested and imprisoned in his palace. Flight-Commander Hewlett, R. N., reaches England after his rescue following the Cuxhaven raid.

JANUARY 4TH.—French advance 500 metres opposite Newport and consolidate their position at St. Georges. They also carry Steinbach in Upper Alsace. German airmen

active over British camp in South-West Africa. The London Stock Exchange, closed since July 30, reopened.

JANUARY 5TH.—Russians defeat enemy in the Mlawka region (North Poland), near the Prussian frontier. Turkish transport sunk in the Black Sea.

JANUARY 6TH.—The House of Lords reassembles, and Lord Kitchener reviews the situation. Russians reach the frontier between Bukovina and Hungary, and capture 1,000 Austrians. Germans, 30 miles from Warsaw, resorting to sap and mine, and using steel shields to approach Russian positions. Three Zeppelins off the coast between Calais and Gravelines. Allies "have the advantage almost constantly" from the sea to the Lys. Arrangements made, through the United States Government, for exchange of British and German officers and men prisoners of war, who are physically incapacitated for further military service.

JANUARY 7TH.—Enemy repulsed in the Argonne, and in the Verdun and Steinbach regions, and French advance towards Mulhausen announced.

JANUARY 8TH.—Three lines of German trenches taken at Soupir, and held against counter attacks, captured section extending about 600 yards.

JANUARY 9TH.—The King and Queen pay a visit to wounded Indian troops in hospital at Brighton. Official proofs circulated of Belgian neutrality until invasion. Germans bombard Soissons Cathedral.

JANUARY 10TH.—Sixteen German aeroplanes seen in the English Channel, but owing to bad weather they return towards Dunkirk, upon which 30 bombs were dropped during the day. Enemy aeroplanes prevented by French airmen from flying over Paris. Battle by searchlight between Russians and Germans; 500 of the latter slain.

JANUARY 11TH.—Publication of text of the interim Note despatched on January 7 in reply to the Note from the American Government on the subject of contraband cargoes. A Berlin telegram states that the death sentence on Private Lonsdale, a prisoner of war, for striking a guard in a

German camp, is commuted to 20 years' imprisonment. Russia slowly advancing on East Prussia.

JANUARY 12TH.—Bad weather impedes operations in Flanders. Fierce fighting on the east of Soissons.

JANUARY 13TH.—Count Berchtold, Austro-Hungarian Minister of Foreign Affairs, resigns, and is succeeded by a Hungarian, Baron Stephan Burian. Tabriz, taken by the Turks. About 100,000 Turks near Erzerum check Russian advance. Severe earthquake in Italy, many thousands killed and injured. General Sir Douglas Haig and General Sir H. Smith-Dorrien made Grand Officers of the Legion of Honour.

JANUARY 14TH.—German concentrated attacks at Soissons, and recapture of ground which had been gained by the French. Russians making progress 45 miles east of the German fortress of Thorn. Swakopmund, the principal Port of German South-West Africa, occupied by Union Forces.

JANUARY 15.—The transfer of the Dacia discussed in London and Washington. A unit of the Hamburg-Amerika fleet, the Dacia had been sheltering at Port Arthur, Texas, since July 28th, and had lately been bought by an American citizen of German extraction and admitted to the American Registry. This transfer the British Government does not recognize, and intimates that the vessel would be liable to seizure if she attempted to make for a German port. The Russians take 5,000 prisoners and nearly 10,000 head of cattle from defeated Turks in the Caucasus.

JANUARY 16TH.—French artillery drives Germans from trenches in the dunes, and ground is also gained near Perthes. Russians continue to advance on the right bank of the Lower Vistula. General rise in price of wheat in the United Kingdom.

JANUARY 18TH.—Copenhagen Correspondent estimates the German losses to date at $2\frac{1}{4}$ millions.

JANUARY 19TH.—German airships attack Yarmouth, King's Lynn, Snettisham, and other Norfolk towns and villages.

Snowstorms interfere with fighting in Flanders. Pursuit of the Turkish Army in the Caucasus continues.

JANUARY 20TH.—French Finance Minister proposes to issue Treasury and National Defence bonds up to 120 millions sterling. Russian Foreign Office protest against German atrocities, including use of explosive bullets.

JANUARY 21ST.—Infantry actions in the Champagne district and French successes. The American Press stigmatizes the German air raid on England as a piece of senseless barbarism.

JANUARY 22ND.—British decision in regard to the Dacia outlined by our Ambassador at Washington. The British Government anxious to protect American owners of her cargo against loss, will safeguard the owners' interests by purchasing the cargo, if the ship is seized, or forward it to its destination without further cost to the owners. A Prize Court would decide whether the transfer of ownership was *bona fide*. A dozen German aeroplanes over Dunkirk, and one is brought down by the Allied airmen. British airmen drop bombs on Zeebrugge. M. Millerand, French Minister of War, inspects new Armies in England.

JANUARY 23RD.—Continuous fighting in Alsace and the Argonne, and slight progress by the French in the Nieuport area.

JANUARY 24TH.—A British patrolling squadron, in the North Sea, sights three German battle-cruisers and an armoured cruiser, the *Blücher*, steering westwards. The German war-ships turned and made for home, but were pursued and brought to action. The *Lion*, flying the flag of Vice-Admiral Sir David Beatty, led the British line. The *Blücher* was sunk, and two other German battle-cruisers were seriously damaged.

JANUARY 25TH.—A Zeppelin shot down by the forts at Libau, and the crew captured. Fog interferes with fighting in Alsace, which has been in progress for some days. The British repulse an attack on Givenchy, near La Bassée. The German Imperial Chancellor issues a new apologia for his "scrap of paper" suggestion.

JANUARY 26TH.—Admiralty intimate that all the British ships and destroyers in Sunday's action have returned safely to port. Russian submarine damages German cruiser *Gazelle* in the Baltic near Rügen. The King decorates the first Indian soldier to receive the Victoria Cross. Turkish advance on Egypt begun. Russians in East Prussia.

JANUARY 27TH.—Vice-Admiral Sir David Beatty's preliminary telegraphic report to the Admiralty on Sunday's action issued. German prisoners assert that the cruiser *Kolberg* was also sunk. Great Britain arranges to lend £5,000,000 to Rumania. Kaiser's birthday. The day was a good one for the Allies all along the front. All the German attacks were repulsed; all the Allied attacks made progress.

JANUARY 29TH.—Comparative quiet in the West. Russian advance in East Prussia on the line of the Memel towards Tilsit. Turkish advance posts reported at Katieh, and at points along the roads leading to the Suez Canal.

JANUARY 30TH.—Japanese sword of honour presented to King Albert in Belgium. Germans again checked by the British near La Bassee. Three enemy battalions repulsed, many dead left in front of British lines. German submarine off Fleetwood, on the Lancashire coast, sinks three British steamers, the *Ben Cruachan*, the *Linda Blanche*, and a third unknown. Crews of first two rescued.

JANUARY 31ST.—Heavy fighting in the Argonne, near Fontaine Madame. Russians advancing on Tabriz.

FEBRUARY 1ST.—Germans evacuated Cernay in Alsace. German attacks south of the lower Vistula repulsed and some trenches recaptured by the Russians. Russians force the Dukla Pass in the Carpathians and capture the G. O. C. and staff of the 30th Turkish division near Olti in Transcaucasia. Dynamite outrage on a railway bridge in Canada, culprit, a German Officer Arrested in the U. S.

FEBRUARY 2ND.—German submarine attempts to torpedo hospital ship "*Asturias*." German attack on British near La Bassee repulsed. German destroyer sunk off Denmark by Russian submarine. Desperate attempt by 7 German divi-

sions to pierce the Russian front opposite Warsaw. Turkish attack on Suez Canal at Tussum repulsed.

FEBRUARY 3RD.—British armed merchantman "Clan McNaughten" sunk in a gale. German merchant cruiser sunk by H. M. S. "Australia" off Patagonia. French aviators dropped bombs on Lille aerodrome. Hard fighting near Westende, fleet cooperating. Russian advance on right flank of lower Vistula and in E Prussia. Turkish attack on El Kantara on the Suez Canal repulsed.

FEBRUARY 4TH.—Hard fighting in Poland, Austrians evacuate Tarnow. Final Turkish attack on Suez Canal by 12,000 men repulsed. Turkish army in full retreat losing 2,400 men, British took 652 prisoners, 3 machine guns and ninety camel loads of stores and ammunition. Second Australian contingent landed in Egypt. Total British casualties to date totalled 104,000.

FEBRUARY 5TH.—Germans proclaim the waters round Great Britain and Ireland to be a "Military Area;" protests from American, Dutch, Danish and Scandinavian press. Minor British success at La Bassée; German loss 1,000 British 200.

FEBRUARY 6TH.—Russians take the offensive on left bank of lower Vistula.

FEBRUARY 7TH.—Loss of German Navy officially reported to be 15,000, excluding the crew of the "Blücher." Loss acknowledged of 8 destroyers and 2 submarines, hitherto unreported and of the German cruiser "Friedrich Karl". Austro-German offensive commenced in E. Prussia and Bukovina. End of German advance on left bank of lower Vistula. Russians advance in the Carpathians.

FEBRUARY 8TH.—Hard fighting on the right bank of the lower Vistula. Russians advance on the lower Bzura R. and in the Carpathians.

FEBRUARY 9TH.—The "Breslau" bombards Yalta, the Russian Black Sea fleet bombards Trebizond.

FEBRUARY 10TH.—American ship "Wilhelmina," with foodstuffs for Hamburg enters Falmouth and is seized. Germans advance in E. Prussia.

FEBRUARY 11TH.—The formation of a battalion of Welsh guards sanctioned. Twenty four British Aeroplanes bombarded Bruges, Zeebrugge, Blankenburgh and Ostend. Germans advancing in E. Prussia and on right bank of lower Vistula in Poland.

FEBRUARY 12TH.—The "Dacia," Hamburg-American liner bought by an American named Bernstein, sailed as a test case with a cargo of cotton for Hamburg. Hard fighting between the R. Niemen and lower Vistula.

FEBRUARY 14TH.—German attack near Ypres repulsed. Germans cut off a Russian Army Corps between Goldapp and Suwalki.

FEBRUARY 15TH.—Speeches in the House of Commons by Mr. Lloyd George and Mr. Churchill, Total naval losses in killed to date 5,500.

FEBRUARY 16TH.—Forty aeroplanes bombarded German positions at Ostend, Middlekirke and Zeebrugge. Niemen—Vistula battle continues.

FEBRUARY 17TH.—Three German airships wrecked in a gale. German submarines sink a British and a French merchant ship. Minor French success near Arras. Hard fighting at Les Eparges, east of Verdun. Niemen—lower Vistula battle and the fighting in the Carpathians continue.

FEBRUARY 18TH.—The day the German submarine blockade of the British Isles is to begin; nothing happens. Hard-fighting at Les Eparges.

FEBRUARY 19TH.—A French ship torpedoed but not sunk in the Channel. German attack at Ypres repulsed. Hard fighting at Les Eparges, German advance between the Niemen, and lower Vistula checked and Russians assume the offensive. British and French fleets bombard the entrance to the Dardanelles.

FEBRUARY 20TH.—Germans torpedoed, but fail to sink a Norwegian merchant ship off Deal; they sunk a British merchant ship. Germans bombarded Rheims. Hard fighting at Les Eparges. Fighting in the Carpathians and South Galicia, Austrians occupied Stanislavof.

FEBRUARY 21ST.—German merchant cruiser "Kronprinz Wilhelm" sunk 4 British ships and 1 Norwegian in the Atlantic. A British ship torpedoed off the Isle of Man. Zeppelin drops bombs on Calais. French capture the contested redoubt at Les Eparges. Hard fighting on the north banks of the R. Bobr and Narev. Germans engaged Ossievitz. German submarine U. 21 shelled by an Admiralty Yacht off Fishguard.

FEBRUARY 22ND.—French warship sinks a German submarine off Boulogne, Russians recapture Jedwabno and Stanislavof. The Russian corps, cut off near Suwaki on February 14th fight its way back to the main Army near Augustovo.

FEBRUARY 23RD.—American ship sunk off the German coast; Norwegian ship sunk off Dover; 2 British ships sunk off Beachy Head. Bombardment of the Dardanelles resumed, all the forts at the entrance reduced. Russian success between Batumund and Khopa.

FEBRUARY 24TH.—A British ship sunk off Scarborough. Russian attacks on Praznitz.

FEBRUARY 25TH.—Russians take 2,630 prisoners near Praznitz.

FEBRUARY 26TH.—Russians recapture Praznitz, taking 5,428 prisoners.

FEBRUARY 28TH.—Blockade of German E. Africa commences. The "Dacia" (*vide* February 15TH) captured by a French cruiser.

MARCH 1ST.—Absolute blockade of Germany declared by England, 30 German and 20 Austrian Army corps located on the Eastern front, 47 German Army corps on the Western front. Attack on the Dardenelles interrupted by bad weather.

MARCH 2ND.—King George visits the British fleet. Russians defeat the Austrians on the R. Lomnitza taking 6,000 prisoners, Russians capture the Turkish port of Khopa. Attack on Dardenelles resumed.

MARCH 3RD.—The report, that a British collier, "Thordis," has rammed a German submarine, is confirmed; Russian captures in S. E. Galicia from 21st February 1915 to 3rd

March 1915 amount to 18,675 prisoners and 5 guns, Allied fleets bombard the Dardenelles, Dikeli opposite Mytelene, and Smyrna.

MARCH 4TH.—U. 8, sunk by British destroyers, French destroyer shelled a submarine of the U. 2 type, British merchant ship "Alston" claims to have rammed a German submarine. Zeppelin U. 8 damaged near Tirmont.

MARCH 6TH.—Bombardment of the Dardenelles continues, the "Queen Elizabeth" firing over the Gallipoli peninsula in co-operation with Allied ships inside the straits.

MARCH 7TH.—Russian Black Sea Fleet bombards Turkish ports, Greek Ministry resigns owing to King Constantine's refusal to declare war on Germany and her Allies.

MARCH 8TH.—Naval aeroplanes drop bombs on Ostend. Russians advance from Grodnoregion, Bombardment of Dardanelles continues.

MARCH 9TH.—H. M. S. "Ariel" sinks U, 21. Four British Merchant ships torpedoed. German Auxiliary Cruiser, "Prinz Eitel Fredrich" puts into an American port for repairs.

MARCH 10TH.—British Capture Neuve Chapelle, advancing about a mile and causing the Germans a loss estimated at 20,000. Report from Copenhagen states that the Germans admit the loss of 4 submarines since February 18th, and that 7 more were missing.

MARCH 11TH.—German attempts to recapture Neuve Chapelle repulsed. Minor Russian success at Lupkow.

MARCH 13TH.—Hard fighting at Neuve Chapelle. British successful taking 612 prisoners.

MARCH 14TH.—The French capture an important height N. of Perthes.

MARCH 15TH.—British Aeroplanes bombarded Westende.

NOTE.—The above is an attempt to compile a diary of the war from the material available in India up to the 15th March. It does not profess to be complete or absolutely accurate.

Diary of the War.

(xxx)

INDIAN ARMY CORPS.

Narrative of events from 20th-30th November, 1914.

—:0:—

On November 21st, H. R. H. the Prince of Wales visited the Indian Army Corps area, and inspected such regiments as were in Corps Reserve.

During the afternoon a German biplane of the newest type was forced by engine trouble to come down near Le Touret. The pilot and the observer, both Officers, surrendered without offering any resistance. They were found to be in possession of a packet of seditious leaflets which they had been ordered to scatter over the area occupied by the Indian Army Corps.

The Germans in the trenches opposite the right brigade section of our line have been indulging in a considerable amount of bomb-throwing. These tactics are, perhaps, the natural outcome of the present form of siege warfare, but the example they have set will doubtless cause many regrets in enemy circles before long, because our Sappers & Miners have constructed effective trench mortars, and are busy making bombs and grenades, so that we shall very shortly establish a marked superiority in this kind of warfare. It has been ascertained that the enemy's saps are driven by pioneers, escorted by small parties of infantry. Bombs or grenades skillfully thrown into these sapheads at intervals will effectually put a stop to any continuous work in them.

2. On November 23rd, the Germans made an attack on a portion of our line. According to prisoners, there would seem to have been a good deal of discussion as to whether this attack should, or should not, be made. Most of the officers were strongly opposed to it, because they did not consider the *moral* of their men sufficiently good for the purpose. Their regimental commander was desirous,

however, of gaining a higher class of the Iron Cross than the one already in his possession. The attack was carried out by all three battalions of the 112th Regiment, assisted by the machine gun company, all available pioneers were also told off to assist, under their commander, a major who had been the moving spirit in all the enemy sapping, mining, and bombing operations. He was mortally wounded during the fighting which ensued. The 1st Battalion, 112th Regiment, had 3 companies in the first line, and one company in support; and the other two battalions were presumably used in the same manner. The 170th Regiment on the left were to have supported the attack, but they failed to do so effectively, with the result that the 112th Regiment got badly cut up. The action opened in the morning with a bomb attack, which gave the enemy a part of our trenches in the centre section of our right brigade. A counter attack, launched at 4-30 p. m., was only partially successful, because the enemy's heavy machine gun fire, though bravely faced by our troops, enabled the Germans to maintain themselves in all but the southern end of the trenches which they had captured. The counter attack was renewed and carried out throughout the night of the 23rd-24th, and was eventually entirely successful in driving the enemy from every part of the line they had occupied.

The difficulties of the operation were accentuated by the fact that the Bareilly Brigade was in process of relief by the Ferozepore Brigade, which meant that, at the time the Germans attacked, the line was held by units belonging to two different brigades. The troops who took part in the counter attack were, moreover, reinforced by units drawn from both the Garhwal and Dehra Dun Brigades. The difficulties of command were thus greatly increased. Nevertheless, the operation was carried out with a determination which ensured success. In such night fighting success must very largely depend upon individual efforts, since both control and combination are difficult; and great credit is due to all who so gallantly took part in this operation. Space

does not admit of a detailed description of the role played by each unit, but it can truthfully be said that the behaviour of the troops, both British and Indian, was worthy of the best traditions of our Army. It elicited the unstinted praise of the Commander-in-Chief. The fire of the British and French artillery was splendidly directed, caused serious losses, and also produced a considerable moral effect.

The results of this fighting were extremely valuable. Apart from showing the Germans that their heavy machine guns and rifle fire will not save them from being driven out by our troops, we captured 4 officers and 105 men, 3 machine guns, and 2 trench mortars.

On the night of the 27th-28th November, small parties of the 1st Manchesters most gallantly attacked two German saps, and killed about forty of the enemy, including an officer.

The operations during the remainder of the month have been of minor importance. Daily bombing has been taking place at those points where the opposing trenches are close together. More than once our troops have succeeded in out-bombing the Germans; and, as our men get more expert in the handling of grenades and bombs, we shall undoubtedly establish a supremacy which will effectually stop the enemy's bomb attacks.

The fog of war has, to a certain extent, descended upon the enemy's movements. Air reconnaissance is now often rendered impossible by the weather, and the existing form of siege warfare precludes any extended scouting operations.

It seems clear, nevertheless, that Russia is bringing increasing pressure to bear in the eastern theatre of war, and that the Germans have, for the moment, abandoned their effort to get to Calais. Printed field postcards, issued free to the troops, found on German prisoners, are, however, headed "Calais, the German Gibraltar," and the prisoners taken by our troops have been unanimous in their belief that their leaders will make another supreme effort to reach

this goal of Calais, towards which they are impelled by an insane hatred of Great Britain.

Thanks to the success of our troops in capturing a large number of prisoners on the 23rd instant, we have been able to locate the following German regiments:—

56th Regiment	...	Opposite Richebourg L'Avoué.
142nd	„	... Between Richebourg L'Avoué and Quinque Rue.
112th	„	... Between Quinque Rue and Rue du Marais.
170th	„	... Between Rue du Marais and Rue D'Ouvert.
169th	„	... Between Rue D'Ouvert and the La Bassee Canal.

The 13th and 16th Regiments were, during the early part of November, between Neuve Chapelle and Richebourg L'Avoué, but it is possible that they, together with other regiments of the VII Army Corps, may have been withdrawn. We have had no prisoners of the VII Corps since the 14th November, and it is most important that some should now be taken on the line between Neuve Chapelle and Richebourg L'Avoue.

If we are to believe prisoners' statements that their companies are now only about 100 strong, on an average, it would appear that the strength of the enemy opposed to us is only about 2-5ths of the war establishment. It is, however, impossible to know what drafts are being sent to bring them up to strength. The German forces opposite to us may, therefore, vary between:—

7 regiments = $7 \times 3,000 = 21,000$ rifles, at war establishment, and 7 regiments = $7 \times 1200 = 8400$ rifles, at 100 men per company, *plus*, in either case, 1 Pioneer battalion, 7 machine guns, and an unknown number of guns, field and heavy.

NOTE.—In the preceding narrative of events, mention of the distinguished part played by the 1-39th Garhwalis in the night operations of 9th and 10th November was unintentionally omitted. Both battalions of the 39th Garhwalis took part in the successful attack on the enemy's trenches.

*Resumé of Principal Operations during the Week 16th-24th
December.*

Issued by the Headquarters of the Armies of the East.

The week from 16th to 24th has emphasized the results gained during the preceding week. Our offensive action has continued with greater energy and the enemy has been forced to take up a defensive attitude everywhere. The vigour of his counter-attacks has shown that he only accepted this attitude in spite of himself. His abortive efforts to retake the ground he has lost has confirmed our advantage. Finally it should be noted that on several parts of the front, especially in ARRAS, on the west edge of ARGONNE and near VERDUN, we have obtained possession of important "points d'appui."

FROM THE SEA TO THE LYS.

Owing to the bad weather, the operations N. of the Lys have become extremely trying; cold and liquid mud reaches the men's thighs wherever they move. It is impossible to fire. In some cases it is even impossible to fix bayonets; fighting then goes on with the butts of the rifles and the fists. Our soldiers, as one of their commanders says, are masses of mud. We have succeeded in arranging baths and change of linen when they leave the trenches, which they appreciate highly.

The hardships of existence which this damp winter imposes on them are supported with incomparable and unshakeable good humour.

The operations of the last week on this portion of the front will be considered under the head of three areas:—

- (1). The area opposite NIEUPORT.
- (2). The district N. of YPRES.
- (3). The district S. of YPRES.

(1). IN FRONT OF NIEUPORT. On the one side are inundations, on the other the sea. Between the inundations and the sea are the sand dunes, where we have made progress.

On the evening of 15th we debouched from NIEUPORT as far as the western outskirts of LOMBARTZYDE.

On the 16th we pushed forward to the sea, occupied the lighthouse, and made more than 100 prisoners. On the 17th we reached the cross-roads of the LOMBARTZYDE-DUNES Road, and made progress at the same time further south opposite St. GEORGES.

On the 19th. fresh progress was made; about 200 metres was gained all along our front. On the 20th, a hostile trench was captured, and on the 21st there was a fresh advance of 150 metres in the direction of WESTENDE. The enemy counter-attacked on the 22nd but was repulsed. The whole of the ground gained remains in our hands.

The German Marine Division, comprising Fusiliers, Marine Infantry and Coast Artillery, has been unable to retake any of the ground lost.

(2.) NORTH OF YPRES. The fighting was most intense near STEENSTRAATE and BIXSCHOOTE, round the Cabaret de KORTEKEER and a small building to the south-east of which is a rather larger mill.

On the 17th December, in one operation we advanced 500 metres, captured several trenches and 4 machine guns, and made 150 prisoners. On the 18th we took the houses closest to our lines one after the other.

From the 17th onwards, the Cabaret has been in our hands. We cleared the surroundings, took a wood, some houses and a field work. On the 22nd we gained a further 100 metres. The enemy made a counter-attack without success.

The operations of the 17th and 18th thus represent a total advance of more than 700 metres.

(3.) SOUTH OF YPRES. Near VELDHOEK and near ZWARTLEEN we progressed 400 metres on 16th December. On the 17th and the following days we continued to make progress, capturing 2 machine guns, wagons, and several groups of houses. (21st, 22nd and 23rd December).

Here again the state of the ground has caused great difficulties, and it has been a case of fighting in water. All the same, we have gained ground everywhere, without a single reverse.

FROM THE LYS TO THE OISE.

The district of LENS and ARRAS have been the scene of several extremely brilliant actions which, taken together, present the same characteristics as those which developed N. of Lys.

(1). NORTH OF LENS. About VERMELLES on the 16th we gained 200—300 metres near NOTRE-DAME-DE-CONSOLATION.

On 17th we progressed 100 metres on one flank and 500 on the other. The total advance on the 18th was 800 metres. On the 23rd we again progressed 150 metres, which brought us to the junction of LOOS—RUTOIRE and LOOS—VERMELLES roads. Our artillery was very successful. Notwithstanding the attempts he made, the enemy had to leave all this ground in our hands.

(2). SOUTH OF LENS. There was fighting about CARENCY and NOTRE-DAME-DE-LORETTE. The soil, even on the high ground, is clay, and intersected with springs. The trenches are filled with water as soon as they are dug.

As in Belgium, the rifles become choked with mud, and fighting was done with the butts. On the 17th December the hostile advance trenches at NOTRE-DAME-DE-LORETTE fell into our hands. On the 20th, the whole of the enemy's front was occupied by us. On the following days the fog stopped us by preventing the registering of our artillery fire.

The German tried to debouch from the COUVETTE DE CARENCY which they still hold; they were repulsed and suffered heavy loss. On the other hand, CARENCY still remains in their hands.

(3). ABOUT ARRAS. At ST. LAURENT and BLANGY we also attacked and made progress.

Since the 17th we have taken the first houses and the MAIRIE of ST. LAURENT, which we have held in spite of heavy counter-attacks by day and night.

On the 24th we made a further advance of 100 metres.

Whenever the days have been sufficiently clear, our artillery has been very effective. In particular, it blew up

an ammunition store at THELUS (N. of ARRAS) and several wagons E. of BLANGY.

(4). BETWEEN ARRAS AND NOYON. The chief fighting has taken place between ALBERT and COMBLES, at OVILLERS-LA-BOISSELLE, MAMETZ, CARNOY, MARICOURT, and N. of ROYE at LIHONS.

On the 17th, 18th and 19th, we captured the cemetery at LA BOISSELLE, a block house near OVILLERS, the hostile advanced trenches at MARICOURT, and reached the southern edge of MAMETZ; on the 22nd, S. of LA BOISSELLE, we pushed our trenches 300 metres farward. On the 24th we held the whole of the southern portion of LA BOISSELLE, and on that day took 80 prisoners and a machine-gun. The Germans then attempted a counter-attack. We repulsed them on 21st near CARNOY, and consolidated our position. A German trench taken by us on 16th and evacuated on 17th, was retaken by us on the next day. Meanwhile, our artillery demolished the hostile trenches N. E. of CARNOY, and destroyed 2 machine-guns (19th December). The next day they lengthened their range and destroyed 2 German guns of a battery which was in position near HEM.

In the LIHONS area on 17th we captured some trenches, which we had to defend vigorously against very heavy German counter-attacks on 18th, 19th 20th, 21st and 22nd. That of the 19th, advancing in column of fours, was literally mown down by our guns, the whole of the enemy being left on the ground. On the 24th we took another trench, in spite of the enemy's desperate resistance.

FROM THE OISE TO W. OF THE ARGONNE.

(1). Between the OISE and the AISNE our artillery obtained marked success; it destroyed a machine-gun and an observing station near TRACY-LE-VAL on 16th, a barricade near VAILLY on 19th, a howitzer on 20th, a machine-gun on 21st, brought down a captive balloon on 22nd, and played havoc with the hostile trenches on the plateau of NOUVRON on the 24th.

Our infantry made valuable progress about NAMPOEL and PUISALENE. On 21st it captured 500 metres of the

enemy's advanced trenches, and took a machine-gun. On 22nd we lost part of the ground gained, but retook it on 23rd. On this day, all the enemy's counter-attacks were brilliantly repulsed at the point of the bayonet. On 24th we remained masters of the whole of the line captured on 21st except for some few metres at its eastern extremity, where the enemy still holds his ground.

(2). SOUTH OF LAON AND CRAONNE AND IN THE REIMS DISTRICT. The chief feature of the last week has been artillery duels. The enemy fired nearly twice as many rounds as during the preceding week, but was unable to effect the superiority gained by our heavy artillery. The following are some of the results gained by our artillery during the last few days:—

Destruction of machine-gun shelters and field works near sugar factories at TROYON and the BEAULNE quarries on 16th, destruction of a redoubt on the plateau of VAUCLERC on 18th, and 2 machine-gun shelters in the same locality on 19th, dispersion of hostile masses in the valley of the SUIPPE on 19th, 20th and 23rd, destruction of German trenches near Farm BOURFAUT on 17th and 22nd.

The best evidence of the results obtained by our batteries is the steady diminution of casualties among our infantry.

The enemy has fired a large amount of star shell, and his infantry have redoubled their fire nightly; in one word, they have given proof of a nervousness with which we have every reason to be content.

BETWEEN REIMS AND THE ARGONNE.

Our unceasing attacks have prevented the enemy, in spite of his severe counter attacks, from recapturing the positions lost by him from 15th to 24th. Our attacks were developed above all between St. HILLIERE-LE-GRAND and BEAUSEJOUR (W. of VILLE SOR TOURBE).

To sum up, all the tactical points which they set out to take are to-day in our possession. Near PERTHES, we gained 200 metres on 20th, the same on 21st and 800 metres on

22nd. This advance extended over a front of 1 km., and represents the whole of the line of hostile entrenchments on this front.

Our attack gained possession of several block-houses, a machine-gun section, including its personnel, ammunition wagons, searchlights, and cupola gun, sure proof that the Germans considered themselves well able to maintain their ground, but that our troops were too much for them.

The repulse of five counter-attacks which they made at this point is further proof of our superiority.

On 24th we drove the Germans from some saps which they still held, and consolidated our occupation of the whole of their advance line.

The operations about PERTHES have been consummated by others of equal value further to the East, *i. e.* a gain of 400 metres at MESNIL-LES-HURLUS on 23rd, and the occupation of the CALVAIRE ridge near BEAUSEJOUR on 10th. On 24th we took a wood to the East of the trenches captured on 23rd, near MESNIL. Here again all successes gained have been maintained in spite of hostile counter-attacks. It is in this region that we have had the greatest success in capturing the various tactical points which were given as objectives. The enemy has suffered heavy losses and our soldiers are full of spirit.

FROM THE WEST OF THE ARGONNE TO THE SWISS FRONTIER.

(1) IN THE WOODS OF THE ARGONNE. The conditions increase in severity and unpleasantness. The difficulties offered by the wooded and muddy nature of the country only emphasize the more our continuous progress. In the two woods of LA GRURIE and BOLANTE the enemy succeeded in blowing up one of our trenches on 17th. Since then he has been pushed back, and since 20th instant we have constructed fresh trenches in advance of our old ones. On four separate occasions we have exploded German mines, destroyed machine guns and covered shelters, and captured shields and other material. We have obtained an

incontestable moral superiority. In short, on the western edges of the ARGONNE, while making progress at several points, we have nowhere fallen back. On 24th alone, we repulsed five attacks.

(2). FROM THE WEST OF THE ARGONNE TO THE HAUTS-DE-MEUSE. On 16th—24th inclusive we showed constant activity, which was frequently crowned with success, although the state of the ground was better fitted for the defensive than the offensive.

Our artillery, and particularly our heavy artillery, has caused the hostile artillery serious damage; on 17th we destroyed two guns; on 18th two batteries were destroyed and one silenced; on 20th a machine-gun shelter was destroyed and one machine-gun blown up; on 22nd a 15 cm. battery to the N. E. of MIHIEL was damaged, and two 77 mm. batteries were destroyed near BETHINCOURT.

Infantry attacks took place particularly in the district of BOURREUILLES to VAUCUOIS, also in that of CUISY to BOIS-DE-FORGES and in the wood of CONSENVOYE. At BOURREUILLES the position was strongly contested. We entered the village but had to withdraw again; we have, however, recaptured its outskirts. At VAUCUOIS we made an advance of about 100 metres, afterwards increased to 300. Similarly we made progress in the wood of MALANCOURT on 20th-21st, about BETHINCOURT and in the BOIS-DE-FORGES on 21st-22nd-23rd, with a gain of 200-300 metres during these three days, and of 150 metres on 24th in BOIS-DE-CONSENVOYE, where we maintained the positions captured in spite of heavy shell fire and counter-attacks.

Finally, in the BOIS DES CHEVALIERS we made an advance of 100 metres and took some prisoners. Those prisoners were in an extraordinarily filthy condition, and a mass of vermin from head to foot.

(3). BETWEEN THE MEUSE AND THE MOSELLE. Fighting has been less severe than on the remainder of the front. We have, however, succeeded in making slow but continuous progress in the forest of APREMONT and BOIS-LEPRETRE, and our artillery has been successful on several occasions *i. e.*,

hostile batteries were destroyed or silenced in WOEVRE and in the forest of APREMONT on 20th.

On 23rd and 24th in the same district, some German trenches were blown in, and on 18th and 22nd we shelled ARNAVILLE station with effect.

(4) IN THE VOSGES. We advanced 250 metres in the BAN-DE-SAPT and maintained everywhere the gains of the preceding week. Near CIREY our outposts have been pushed forward to within 1,500 metres of the town.

OPERATIONS OF AIRCRAFT.

In spite of great difficulties caused by mist, rain, fog, and wind, our aeroplane squadrons and our dirigibles have performed excellent work. On the night of 17th, one of our airships threw 15 bombs on SARREBOURG station and 6 on PETIT-EICH station, as well as 5 bombs and 1000 darts on a train in the station at HEIMING. Serious damage was done and commented on in the German papers.

On several occasions on 18th, 20th, 21st and 22nd our aeroplanes chased German machines and forced them to land. On 18th one of our aviators shot a German pilot and saw his machine fall to the ground. Another aviator near ARRAS fired 20 shots at a hostile plane and put it to flight. Another of our officers, chased by an Albatross, succeeded in landing behind our line, although his machine was seriously damaged by a shell.

In spite of atmospheric conditions, several of our aviators have had success with bombs and darts against the following targets:—

On 18th —Hostile entrenchments.

On 19th-20th—Masses of the enemy's troops.

On 21st-22nd—Stations and trains.

On 21st —A captive balloon.

On 22nd —PORT-DE-STRASBOURG and DIEUZE Station.

The Prince of Teck warmly thanked the Commander of the squadron which was operating on the Belgian coast in conjunction with the English fleet; this squadron gave valuable assistance in directing the fire of the ships and watching for hostile submarines.

25th December, to the evening of the 4th January.

The period from the 25th December to the 4th January, in spite of the shocking condition of the ground and the bad weather, has been distinguished by three important actions, which all ended in a marked success for us, *viz*: the capture of ST. GEORGES; the development of our successes in the neighbourhood of PERTHES; the capture of STEINBACH.

In addition, on the whole of the front our offensive action has been marked by gains, which are given in detail below.

At certain points, the enemy has given way slightly, at others he has made serious counter-attacks, but has been everywhere repulsed. Nowhere has he obtained a success which can, in any way, be compared to those gained by us in the past eleven days.

FROM THE SEA TO ARRAS.

I. THE CAPTURE OF ST. GEORGES.—North of the Lys the most important success since the 25th December has been the capture of ST. GEORGES.

Owing to the state of the ground, the success of this enterprise appeared more than doubtful. It has, however, been complete.

ST. GEORGES comprises merely a few houses situated between the YSER Canal and the road. Owing to the floods the only practicable means of access were this raised roadway and the southern bank of the canal. Elsewhere, the country was covered with water or liquid mud which reached to the knees.

ST. GEORGES had been organised by the enemy as a regular fortified post (walls loopholed, barricades, sand bags and machine guns commanding both roads). The roadway was held and protected by wire entanglements.

Our marines, who were entrusted with the honour of capturing ST. GEORGES, progressed by means of sapping up the roadway itself. From point to point the sap was en-

larged, forming a covered shelter for the troops who were to make the assault. The same process was carried out on the Southern embankment of the canal.

On the 27th December, we reached a ferryman's house north of ST. GEORGES. This tactical point having fallen into our hands, the assault was made on the following day.

In spite of a heavy fire from the enemy some of our marines managed to bring up a gun by means of a raft, to mount it on the embankment at close range from the houses of ST. GEORGES and to demolish the houses by shell fire.

At the same time to the south of the village, the Belgians advanced in the mud and a marine detachment which arrived in boats from RAMSCAPPELLE occupied two farms, whence their fire took the hostile defence of ST. GEORGES in enfilade.

Our marines, who had collected in the sap on the road, rushed forward to the assault. The last remaining German marines in ST. GEORGES surrendered. They only amounted to 13, while 300 corpses were found among the ruins.

2. FROM ST. GEORGES TO YPRES.

In addition to the capture of ST. GEORGES, our troops north of the Lys have succeeded in making appreciable progress in spite of the dreadful condition of the ground.

Night attacks among the dunes, which were opposed by a heavy bombardment, gained 80 metres in front of NIEUPORT on the 25th December. Our progress continued on the following days (50 metres on the 27th and 50 metres on the 29th.)

East of ST. GEORGES, we advanced about 250 metres on the 29th of December and 500 metres on the 4th January. We have found 200 fresh corpses. The enemy made a few counter-attacks and kept up heavy artillery fire, but obtained no success.

3. IN THE NEIGHBOURHOOD OF YPRES.

On the 1st January we blew up a fortified post occupied by two companies of 70 men each, 3 machine guns and 2 field guns. The explosion produced a column of smoke 120 metres high and 140 metres broad. Half the defenders

were buried under the ruins, the other half took to flight. Our artillery then came into action and the fugitives were decimated.

Near the farm EYKHOF on the 3rd, we mined the enemy's trench, which buried its occupants. On nearly the whole of the front flooded trenches full of German corpses were reported by our patrols.

North of YPRES, the state of the ground has immobilised us. A Colonel writes in his report:—

"The ground on which we are engaged is in a terrible state. The top crust, 30 centimetres in depth is comparatively good, but underneath it is mud and nothing but mud. Men working in saps or the trenches from 1 metre to $1\frac{1}{2}$ metres in depth, are almost incapable of getting out of them and sink gradually into the mud until several men are necessary to pull them out. The men, although possessing the greatest spirit and doing their utmost to carry out orders to climb out of the trenches, are unable to do so."

On this waterlogged, ground our soldiers give continual proofs of endurance, ingenuity and devotion. Owing to the condition of the ground a chasseur battalion could not be relieved or rationed during two days; an infantry battalion alongside, however, shared their own rations with their comrades.

4. THE BELGIAN ARMY.

In spite of a lively shell fire, the Belgian Army has stubbornly defended the bridgehead which it had constructed South of DIXMUDE. It made an advance of 100 metres on the 25th December and of 40 metres on the 27th, and its artillery silenced the German batteries. It was equally successful on the 4th January.

During the 30th and 31st December and the 1st and 2nd January, the Belgian Army occupied several farms which still remained in the enemy's hands on the left bank of the YSER, and pushed forward its patrols to the PERVYSE-SCHOORBAKKE road.

A Belgian machine gun section distinguished itself at the capture of St. GEORGES.

FROM ARRAS TO RHEIMS.I. IN THE NEIGHBOURHOOD OF ARRAS.

The principal fighting has taken place about CARENCY.

In the evening of the 25th, our lines reached the first houses in the village. On the 24th, we made progress south of CARENCY and south SOUCHEZ. On the 27th, between a point south of CARENCY and the wood of BERTHONVAL, we captured 800 metres of German trenches, as well as a trench to the east and to the south of these.

The Germans after a stubborn defence, counter-attacked us, but our infantry held its ground and retained possession of an advanced line 100 metres from the enemy's trenches. On the 4th, our artillery hindered the Germans from working on their trenches.

Progress was also made at Loos (250 metres on the 31st); near VERMELLES on the 2nd January; at Saint LAURENT on the 3rd January.

The enemy's artillery was very active and has shelled our front continuously, blowing up two of our ammunition wagons on the 31st December. On the other hand, he has scarcely made any infantry attack.

In spite of difficulties arising from continual landslips caused by unceasing rain, our infantry have shown themselves full of energy and spirit. On the 30th December, in the wood of BERTPONVAL, the mud and water was in places up to the knees, and in some places up to the waist. The Territorials petitioned to take part in the patrols in advance of our lines and behaved extremely well.

Our artillery destroyed two machine guns in emplacements on the 25th December, a blockhouse on the 31st, and gave useful support to the English right on the same day.

The co-operation between the allies has been close and continuous as always, witness the following letter from the General commanding one of the British Armies:—

"I particularly wish to bring to notice the good conduct of the battalions of the French Territorial Regiment placed at the disposal of the Indian Corps by the General com-

manding the French Army on the occasion of the German attack in the neighbourhood of GIVENCHY on the 20th and 21st of December, and during the operations which followed to re-establish the line. These two battalions took an active part in the operations, both by making a counter-attack and in assisting to hold the village of GIVENCHY. Their conduct has been admirable in every way and they offered a remarkable resistance to the enemy under heavy fire."

2. EAST AND SOUTH-EAST OF AMIENS—NEIGHBOURHOOD OF ALBERT AND ROYE.

The period from the 25th December to the 5th January has not been marked by any operations of great importance.

The attack on LA BOISSELLE, which was briefly reported in the last communique, was well carried though. Our troops took 4 machine guns, made about 100 prisoners and pushed their trenches forward to 30 metres from the German line, where they maintained themselves, in spite of very heavy counter-attacks on the 25th and 27th December. Several German officers were killed during these days and their corpses remained in our hands. The Germans prepared their attack by the concentration of a large amount of artillery, which, however, had no effect.

Actions of minor importance took place in the neighbourhood of LIHONS (trenches lost and regained on the 25th; mining on both sides on the 27th.)

Our artillery replied energetically to the hostile guns and gained the advantage almost everywhere. It destroyed some trenches on the outskirts of La BOISSELLE, a command post and a "Minenwerfer" at BEUVRAIGNES. It silenced the German battery on the ALBERT-PERONNE road.

The bad weather has necessitated undertaking a large amount of work in repairing the trenches, which our men have carried out with perfect good humour.

3. IN THE VALLEY OF THE AISNE.

Nothing to report except artillery duels, which have often ended in successes for us.

On the 26th, north of Soissons, we made wide breaches in the enemy's wire entanglement. When the enemy attempted to repair these entanglements we allowed them to begin the work and then opened fire, killing all their working parties on the spot.

On the 26th, we destroyed a machine gun and a battery in the Forest of OURSCAMPS, a mortar north of VINGRE; on the 27th, some machine gun emplacements on the plateau of NOUVRON; on the 29th some trenches near CROUY; on the 2nd January, some works on the plateau of TOUVENT.

Wherever our infantry has been employed, its conduct has been all that could be desired. On the 25th December an attack was made on some portions of hostile trenches which had already been disputed on the 21st and 22nd. Our sappers blew up the wire entanglements without loss and our men, discarding their packs, rushed the hostile trenches at the point of the bayonet. They barricaded the communication trenches by means of sand bags which they carried with them, and repulsed the enemy's counter-attacks. They maintained their positions until evening and then fell back on a new line which they have occupied ever since.

In the same way, on the 1st January, after the Germans had exploded a mine, our infantry, although taken by surprise, rushed forward and occupied the cavity, where they remained, in spite of numerous and severe attacks.

OPERATIONS OF AIRCRAFT

In spite of unfavourable weather, our aviators have been very active. During their reconnaissances, several of machines have been hit in the planes, fuselage and propeller. Two lieutenants were slightly wounded. On the right wing they have dropped bombs with success.

20 bombs were dropped on METZ Station on the 25th, and 6 on the 31st December. On the 26th, 6 bombs were dropped on the METZ hangars. This was in answer to a Zeppelin raid on NANCY. Since the 26th, no Zeppelin has been seen. The stations of VIC, of CHATEAU-SALINS, of REMILLY, of ARNAVILLE, THIAUCOURT and HEUDICOURT, were bombed on several occasions.

At other points on the front, hostile masses, parks and bivouacs were bombed both by day and night. On the 25th, 12 bombs were thrown on a company at GERCOURT, 4 on a bivouac at DONTRIEN, 1 on the woods of St. MARD, 1 at NAMPCEL, 2,000 darts on vehicles and infantry in the same area; on the 26th, 10 bombs and 3,000 darts in the same area; on the 27th, 8 bombs on a captive balloon on the HAUTS de MEUSE; on the 29th, 2,000 darts on a body of troops at DONTRIEN; on the 31st, 1,000 on a column at St. HILAIRE.

A German "aviatik" flying towards PARIS, was headed off at CORBEAULIEU and forced to return.

A night flight, carried out during the night of the 25th December was particularly successful, in spite of a very strong wind. The aviators started at 7 p. m., and passed over the hostile lines at 5,000 feet. They observed a lighted bivouac, threw some shells on it and were able to observe their effects. On the first burst all the lights were extinguished. On their return journey they were followed by searchlights, flares and star shells. They escaped, keeping a high altitude.

Two of our aviators, owing to engine trouble, fell into the hands of the enemy. We had news of them through a letter thrown by a German aviator two days later on DUNKIRK. The most interesting extracts of this letter are given herewith:—

"We had a great misfortune yesterday, but are still alive. The motor was working very well when we crossed our lines above YPRES. From this time onwards we were heavily shelled between MENIN and COURTRAI. At 2400 metres the motor began to work badly. We tried to return but could not make progress. We could see YPRES and the aeroplane kept on falling. Much to our disgust we had to decide to land. During our descent, guns continued to fire at us, and the machine was buffeted owing to remous caused by the shells. Infantry also fired at us but we landed without injury. We immediately tried to set fire to the machine under great difficulties, but the German soldiers approached,

firing at us. The petrol refused to burn and finally my comrade fired his rifle into the reservoir, and from that time on we were the target for a furious fire. I succeeded in setting light to the machine with my last match.

I do not know how we managed to escape the enemy's fire, which we underwent at point blank range."

FROM 5TH JANUARY TO THE 15TH JANUARY.

The period from the 5th to the 15th January and the preceding ten days have been distinguished by very bad weather; rain, snow, wind, fog, mud. Active operations have consequently been slackened.

The facts worth notice are as follows:—

1. The extension and consolidation of our success on the right bank of the YSER, between ST. GEORGES and the Sea. In this neighbourhood the German offensive has been stopped on the YSER. On the other hand, we have occupied a large tract of country on their side of the river.

2. The fighting round SOISSONS has ended in our offensive, which commenced so favourably, being checked by the flooding of the AISNE, which destroyed three bridges and footways, and prevented our reinforcements from moving to the right bank of the river against a very strong hostile attack; we consequently had to fall back about 1800 metres on a front of rather under 5 kilometres.

3. Fresh progress by our troops in the neighbourhood of PERTHES, and the repulse of all hostile counter-attack.

4. The repulse of German attacks in the ARGONNE.

5. Continuation of our successes in UPPER ALSACE.

OUR SUCCESSES ON THE RIGHT BANK OF THE YSER.

In the first place should be noted the important results obtained by the continuous effort of our troops since the end of December on the right bank of the YSER.

At the end of December we held only a very limited bridge head in front of the town of NIEUPORT. This position

we attempted to widen and deepen. This result has now been obtained between the sea and ST. GEORGES.

The capture of ST. GEORGES was related in the last communique. In order to estimate its full importance, the events which prepared and completed the operations must be related. Our attacks commenced on the 22nd December, in the direction of the sand dunes on the right bank between NIEUPORT and the Sea. These dunes, consisting of numerous small hillocks, are very difficult to get through. Further South, as far as LOMBARTZYDE, they merge into a very intersected country, which is called the Polder. LOMBARTZYDE has been organised for defence. South of it the flooded area begins.

From the 23rd to 30th December, the enemy, who was taken by surprise by our attack on the 22nd and our progress in the dunes, has made numerous counter-attacks. During that period he bombarded the town of NIEUPORT and NIEUPORT-BAINS.

Our troops repulsed all these counter-attacks. We continued to gain ground extending the field of action daily; ST. GEORGES was taken on the 28th and the lower edges of the large dunes immediately opposite the Plage were reached on the same day.

As a protection against the hand grenades thrown by the Germans, our skirmishers used tennis nets from NIEUPORT-BAINS. They rushed the dunes with wonderful energy; on the 29th and 30th they organised their position, while the success gained at ST. GEORGES was consolidated.

From the 30th December onwards, the enemy made no counter-attack. We then occupied an area of about 3 kilometres, on the right bank of the YSER. Communications then had to be organised.

With this end in view, a heavy bridge was constructed which our men named after the General Commanding. Hostile aeroplanes located it at once, and at high tide it was also visible for the German artillery. All the efforts of the latter were, however, fruitless and its fire caused no damage to the bridge. In revenge, the town of NIEUPORT and NIEUPORT BAINS were heavily bombarded.

During the following days the Zouaves made progress in the direction of LOMBARTZYDE. On the 7th they occupied a small hill West of the village, and made their position impregnable. A counter-attack was repulsed on the next day.

On the night of the 7th-8th the enemy gave up the struggle for the locality and occupied the large dune, constructing fresh trenches, which our artillery destroyed during the day. During the following days our artillery gained several successes, especially in the destruction of observation posts. From the 7th to the 15th the hostile artillery made only spasmodic replies to our fire.

Our line on the right bank of the YSER was this assured by a broad and solid covering position. Thus the YSER in this portion of the front, although it had stopped the main German offensive in October, failed to check us.

FROM NIEUPORT TO THE AISNE.

Beyond the important results gained on the right bank of the YSER, there have been no further events of importance on our left flank. The bad weather continues; rain and fog has hindered operations on either side and forced them to remain comparatively immobile.

Our artillery has chiefly fired on hostile trenches and batteries the hostile artillery on villages,

We destroyed some machine guns and "Minenwerfer" near YPRES on the 6th, 8th and 11th instant.

On the night of the 11th-12th the Belgians occupied a farm which they believed was occupied by the Germans, mined and then evacuated it. On the next day, as soon as the Germans re-occupied it, the house and its occupants were blown up.

Near POELCAPELLE the enemy attempted one of the "ruses de guerre" which he is so fond of. A detachment advanced at night shouting out "Frenchmen, our friends, come along." We showed them the futility of this stratagem by firing a star shell and some volleys of musketry.

About ARRAS there has been continuous rain. In some

of the trenches the water reached a depth about 4' 3". The enemy suffered in the same way.

On several occasions we silenced the hostile artillery and on the 9th, 10th and 11th January dispersed collections of the enemy's troops. We exploded mines and occupied the craters on the 13th, and gave useful support to the British near LA BASSEE.

LA BOISSELLE continues to be the scene of an almost continuous struggle. On the 5th our artillery demolished a shelter. On the 6th the enemy blow up the walls of a group of houses occupied by us. We, however, maintained our position, and, thanks to the explosion, our field of fire was improved. On the 7th we gained about 100 metres on the LA BOISSELLE—AVELUY road. On the 10th we progressed about 100 metres at another portion of the village and on the 11th maintained the ground gained.

The Germans blew up portions of the trenches we captured from them, but failed to dislodge us. They then asked for an armistice in order to recover their wounded. We refused this, and South of LA BOISSELLE, occupied a fresh trench in advance of our line.

On the 11th, we were heavily shelled, but did not give way. We also repulsed a serious attack on the 15th.

It is a case of gaining ground foot by foot, and we give the enemy no rest.

We also gained a small success at FOUQUESCOURT on the 13th. The guns on both sides were fired without ceasing.

THE FIGHTING ABOUT SOISSONS.

During the operations about SOISSONS we gained valuable success, but the flooding of the AISNE and the destruction of the bridges and footways unfortunately hindered us from following them up.

The enemy profited by this situation to make a fierce counter-attack. The struggle was very severe and cost us some heavy guns which could not be removed and were rendered useless.

Our withdrawal, however, was carried out in good order and is of purely local importance.

The operations commenced on the 8th January by an attack of our troops on the plateau 132 (N. E. of SOISSONS).

This attack, against a salient of the German line, was completely successful. Our sappers made gaps in the hostile wire entanglements, and a very effective fire, lasting for an hour and a half, destroyed the enemy's subsidiary defences.

The assault was carried out at ten points at 8-45 a.m. In a few minutes, and with only slight losses we captured the hostile trenches in the salient, and the two lines immediately in the rear of them.

Almost immediately afterwards hostile artillery opened a heavy shell fire. At 10-25 a.m. a hostile counter-attack. Its right flank alone came into contact with our left flank, and there was fierce fighting during the whole of the 8th. At 1 p.m. and 3 p.m. on the same day, two other counter-attacks, supported by artillery fire, took place. The attack at 3 p.m. was particularly heavy, and was only repulsed by a vigorous bayonet charge by our chasseurs. 100 of them, although surrounded, refused to yield and were killed to the last man, inflicting very heavy losses on the enemy and preventing him from advancing.

On the 9th, at 5 p.m. the Germans renewed their attack. They were thrown back everywhere except at one point in their third line, where they managed to maintain themselves. At 8-30 a.m. the German battalion, as it was about to attack, was dispersed by our artillery.

Throughout the day, the trenches which we had captured, were heavily shelled. Several of them were very much knocked about, but we repaired them under fire. These trenches, as well as the ground between them, are full of German corpses.

During the night of the 9th 10th, two fresh hostile attacks were repulsed.

On the 10th, we gained a fresh success against the hostile trenches to the East of those which we had occupied

on the 8th. The corresponding trenches in the second line were selected as a further objective.

The enemy anticipated our offensive by an attack which we repulsed, attacking ourselves immediately afterwards.

Our infantry was assisted in the assault by a group of Moroccan troops of which we had been without news since the 8th, and which, separated from their main-body, had remained unobserved in a portion of the abandoned hostile line.

At 5 p. m. our objective was obtained. We occupied both lines of trenches and a portion of the wood to the North-East.

In spite of somewhat heavy losses, the moral of our troops was excellent (we had 548 wounded, the number of dead is not yet known).

On the 11th, as on the preceding days, severe fighting took place. We maintained the positions captured by us, except for a portion of trenches which the hostile fire rendered untenable during the day. We, however, re-occupied it at night.

In addition, we completed our success of the day before, by capturing some trenches on the CROUY ridge E. of Hill 132. We captured some machine guns and prisoners, and the ground in front of us was heaped with corpses. In the evening, however, a German counter-attack regained the central portion of this trench.

On the 12th, the enemy made a heavy attack on the plateau 132, *i. e.* the ground occupied by us from the 8th to the 10th.

In addition, during the night of the 11th-12th a rise of the AISNE carried away all the bridges but one between VILLENEUVE and SOISSONS. This, in conjunction with the German attack, made our situation very difficult.

At 10 a. m. the German gained a footing on the crest of the plateau, and moved down toward CROUY, directing a very heavy fire against our positions.

At 11 a. m. their attack was strongly reinforced and developed on hill 132, east of TERNY road. The defences

had been destroyed by the firing of the artillery of either side. The colonel commanding the sector was buried in his command post. Nevertheless, our troops maintained themselves on the brow of the hill. They were, however, very hard pressed, and the destruction of the bridges made reinforcements very difficult.

From this moment, we took steps to remove a part of our artillery to the right bank of the AISNE. Two guns could not be got away, and were rendered useless.

On the 13th, we made a counter-attack against the plateau 132. We took a trench and about 100 prisoners, and this allowed us to carry out our withdrawal from the left bank.

Towards CROUY, the Moroccan troops attacked with the greatest energy, but the steepness of the slopes and the depth of the mud stopped their movements.

To the East, about MONTCEL and St. MARGUERITE, the enemy made a very heavy attack. Difficulties of reinforcements became more and more serious; in fact the flying bridge over which they had to pass, was set adrift by the rise of the water. Only the VENIZEL bridge remained, and the road up to it was flooded at either side. Both the bridge and the road were under hostile fire.

These circumstances hindered our troops from carrying out their mission. Nevertheless, the withdrawal was carried out in good order during the night of the 13th-14th. The enemy was very exhausted and did not attempt to interfere with our withdrawal, and we occupied the bend in the river, covering SOISSONS.

On the 14th, a severe attack at St. PAUL was repulsed and our position was greatly strengthened.

On the 15th, our artillery dispersed some hostile groups, who made no attempt to attack.

To sum up, during this fighting, of purely local importance, our offensive, which obtained a thorough success on the 8th, 9th and 10th January, was nullified from the 11th onwards by the rise of the AISNE and the destruction of the bridges.

The enemy profited by these to counter-attack in strength. The object of the counter-attack was to drive us into the river or to cut us off, but it did not succeed.

FROM SOISSONS TO PERTHES.

East of SOISSONS and as far as SOUAIN, fighting was limited to an artillery duel in which we obtained several successes (batteries silenced on the 9th, destruction of a gun and its wagon on the same day, destruction of trenches S. of VILLE AU BOIS on the 11th, and of machine gun posts near LA POMPELLE on the 13th).

The infantry made an energetic advance East of REIMS near the BOIS DES ZOUAVES and the FERME d'ALGER. A hostile blockhouse which had been destroyed by our artillery was captured by us in the same area.

Near the FERME DES MARQUISES, we made several surprise attacks at night on German posts with great success.

OUR SUCCESSES IN THE NEIGHBOURHOOD OF PERTHES.

The enemy made every endeavour to re-take the ground that he had lost in the neighbourhood of PERTHES. We not only prevented him, but made fresh progress.

On the 8th January, the Germans attacked us West of PERTHES, in an endeavour to re-take hill 200, whose importance was noted in the last communique. We repulsed their attack and immediately counter-attacked.

This counter-attack gained about 500 metres of ground West of PERTHES. We then attacked the village itself and carried it, making several prisoners and occupying it.

Counter-attacks on the evening of the 8th-9th were all repulsed. From the 9th onwards our radius of action was increased, and we captured one of the enemy's works 80 metres north of the Farm of BEAUSEJOUR. We also made progress S. E. and to the West.

The enemy attempted to re-take the work he had lost. As on the 8th, not only did he fail, but we took a further 200 metres of trenches. The Germans attacked in

lines of columns and suffered very heavy losses. The ground was covered with dead, machine guns, searchlights and food supplies, as well as about 50 prisoners fell into our hands.

We have since repulsed all counter-attacks in this locality.

On the 15th, our patrols found a very large number of German corpses in front of our lines.

As a result of our action in this area from the 21st December onwards, we have carried our line more than two kilometres further North of the line which we occupied three weeks ago. We have carried out about a dozen attacks, and repulsed more than twenty counter-attacks.

Hill 200, which we remain in possession of, is an important fortified position, against which all efforts of the enemy have up to now failed. Rain, mud and fog have, however, been a great hindrance to us.

FIERCE FIGHTING IN THE ARGONNE.

West of the Bois DE LA GRURIE we repulsed several attacks on the 5th, 6th and 7th instant. In the Eastern sector, heavy fighting took place.

On the 5th January, we made two attacks North of LA GRURIE and North of COURTECHAUSSES. These attacks coincided with two hostile attacks at BAGATELLE and at FONTAINE MADAME. Heavy fighting resulted, which ended in our favour.

At COURTECHAUSSES the attack commenced by the explosion of eight mine chambers under the German trenches. The Italian Regiment and a French battalion immediately rushed forward on this front of 600 metres and captured the whole of it.

The Italians carried away by their impetuosity, advanced a further 600 metres without taking sufficient steps to organise the ground they had gained, and it was in this advance that CONSTANTIN GARIBALDI met his death. His men captured a whole German company, including three officers and twelve under officers, together with machine guns and ammunition wagons.

Owing to the want of proper organisation, the hostile counter-attack regained a portion of ground we had captured. The French battalion operating on the right of the Italians, maintained the 300 metres of trenches which it had occupied and strengthened. The Italian legion is full of enthusiasm and eager to try again. In the course of the attack, our guns destroyed three machine guns.

On the same day fierce fighting took place at FONTAINE MADAME. The day opened by hostile artillery fire, shortly followed by an attack in force carried out by three batalions. After hand to hand fighting, the Germans gained a footing in one of our communication trenches, but during the night we re-took the ground lost, where we found numerous corpses, sand bags, steel shields, arms and intrenching tools.

From the 8th to the 10th, during tempestuous weather, there was severe fighting on the banks of the stream des MEUERISSENS.

The enemy made a very heavy attack which drove us back on the 8th, but on the same day and the following days we regained part of the ground and maintained all our positions.

This fighting was particularly severe, and we lost a certain number of officers, but the enemy sustained heavy losses, and the dash that he showed at the commencement was almost immediately shattered.

FROM THE ARGONNE TO UPPER ALSACE.

About VERDUN and on the HAUTS DE MEUSE our artillery silenced the hostile guns on several occasions.

At the Bois de CONSENVOYE and the Bois d'AILLY, we repulsed several attacks. At ST-MIHIEL we destroyed some foot bridges thrown over the MEUSE by the enemy. The German attacks in the Forest of APREMONT have ceased, and it appears that the enemy has given up all hope of dislodging us.

In WOEVRE, we have gained continuous successes. Near FLIREY we occupy a portion of the advauced German line.

On the 8th we progressed about 100 metres, and on the 15th repulsed a severe attack.

At the BOIS LE PRETRE, we mined and blew up a German trench in the sector which he still occupied, and occupy it ourselves. Our progress at this point has been continuous for the last two months without a single set back. It has been a case of siege warfare and the two lines are only 30 metres distant.

The enemy showed a certain amount of activity in the Forest of PARROY (E. of NANCY). He was repulsed.

Attempts to advance in the BAN de SAPT and at the TETE DE FAUX in the VOSGES have also been repulsed and South of SENONES our infantry caused the enemy severe losses.

OUR GAINS IN UPPER ALSACE.

The successes obtained in upper ALSACE have been consolidated, and would have been considerably increased if the state of the ground had not immobilized our troops on several occasions. Reports from commanders indicate that our soldiers are suffering from the severity of the weather, rain, snow and mud. In many places the ground is an absolute morass.

The heaviest fighting took place near CERNAY on the Eastern slopes of hill 425. On the 5th January, the enemy succeeded in re-occupying one of his old trenches on this slope, but we re-took it on the 7th and made a further advance Eastwards.

We had many wounded on the 5th as our men, whose rifles were clogged were unable to fire, but it is not true that the enemy made several unwounded prisoners.

Since the 8th instant, the Germans have been unable to re-occupy Hill 425, and have contented themselves with shelling it heavily. They also demolished the hospital of THANN, which they made their chief target.

Further South, we captured BURNHAUPT LE HAUT on the 7th, and lost it on the 8th. But, generally speaking, apart from this local event we have made several hundred metres

progress in the direction of ALTKIRCH on the 6th, and more than one kilometre on the 10th.

As a whole, we have obtained appreciable results in upper ALSACE, and in spite of reinforcements, the enemy has been unable to affect them. We captured and still occupy STEINBACH, and the heights North and South of it, up to the crests which dominate the place of ALSACE.

In addition we have strengthened our positions opposite the line ASPACH-LE-BAS—KALBERG—BURNHAUPT.

We have consolidated our successes, in spite of unceasing counter-attacks, which have occasionally been successful, but which were always followed by immediate reprisals on our side.

This success is the more meritorious, as the rain and snow have soaked the ground, and the fog has hindered the artillery, consequently it has been as difficult to fire as to entrench.

We have already noticed the magnificent bravery of our Alpine troops. The spirit and stubborn heroism of the infantry regiment which captured and held STEINBACH must also be noted.

OPERATIONS OF AIRCRAFT.

On the 11th January, an ALBATROSS, flying at 2,800 metres, was chased above ARRAS by a French machine, which forced it to return to its own lines.

During the night of the 12th-13, an aeroplane squadron bombarded the station at NOYON,

On the 13th, an aeroplane bombarded the railway ALTKIRCH-CARSPACH in ALSACE and the station of REMILLY-SUR-NIED in LORRAINE. On the same day, two aeroplanes gave chase to a German machine flying towards NANCY.

A letter from LORRAINE speaks of the effects of the bombardment of REMILLY on the 27th December. Some soldiers were killed and the railway between REMILLY and BEAUDRECOURT was demolished.

Finally, the pilot GILBERT and Lieutenant PUECHREDON had a successful engagement with a hostile machine under the following circumstances:—

The pilot GILBERT and Lieutenant PUECHREDON as observer, were returning from a reconnaissance near CHAULNES on the 10th January, when they noticed a hostile machine flying towards AMIENS. They caught it up and the observer fired four shots from his carbine. Two of these hit the hostile observer (Lieutenant von FALKENSTEIN); the third ball hit the pilot KELLER and the fourth pierced the radiator.

The hostile pilot landed immediately and was made prisoner.

This is the third time that Sergeant GILBERT, who has already received the Military Medal, has forced hostile machines to come down.

16TH JANUARY TO THE 26TH JANUARY.

The last ten days have not been marked by any important event. The most interesting operations, from the point of view of the numbers engaged, have all resulted in our favour. Among these are:—

(1) The decided failure of the German operations to the East of YPRES on the 25TH.

(2) The still more serious failure at LA BASSEE on the 25th and 26th.

(3) The absence of any German attack in the neighbourhood of SOISSONS.

Elsewhere, in the engagements which are described below, only one two, three and sometimes four companies on either side took part: that is to say, they are of only secondary importance.

The weather conditions, which were equally unfavourable to the enemy as to ourselves, are sufficient explanation of the small efforts made.

As far as the Allied Armies are concerned, there is another reason.

These Armies are being constantly reinforced and their offensive power increases from day to day. It is thus to

their advantage to produce their maximum effort at the moment when they dispose of the maximum means.

This is the action they will take.

Even if the consequent strain produces at times a disagreeable impression among the civilian population, we are convinced that this impression will disappear if it is remembered that the only thing that matters, is to gain, without useless sacrifice, a complete success.

All the recent local engagements have strengthened the conviction of the Military Authorities that they will obtain this result.

To sum up the events of this period, one may say that :—

(1) Wherever the Germans have attacked in large numbers (one Brigade at least in the YPRES and LA BASSEE sectors) they have been repulsed with enormous losses.

(2) At the point where their own communiqués claim that they have obtained a decisive success (SOISSONS sector) they have not dared to attack.

At other point on the front there have only been local engagements of minor importance, which have all, with one exception, resulted in our favour.

FROM THE SEA TO THE LYS.

The progress of the Allies and serious checks to the Germans :—

The bridge-head which we have organized at NIEUPORT on the right bank of the YSER has been consolidated and extended by a further advance.

The daily advance has been small, 200, 150 and 70 metres sometimes. At night our men, protected by portable shields, crawl forward in the dunes or along the roads. In front of their defensive line they rapidly construct a new one with sacks, baskets and small boxes filled with earth, for in this sandy ground close to the sea it is impossible to dig a deep trench.

The gale, which has been blowing during the last few days, added to the difficulty of operations.

We have thus gained ground to the East of LOMBARTZYDE along the POLDER, exerting an increasing pressure on the enemy's defences. The enemy only once attempted to assume a counter-offensive.

On the 23rd January, the Germans intended to attack the trench which we had constructed during the previous night. The troops were massed for the assault with bayonets fixed. They were immediately observed by our artillery and fired on by our batteries, and were dispersed before they were able to leave the trenches.

Our artillery has been particularly effective from every point of view in this neighbourhood. It has rendered several German trenches in the DUNES untenable, and has destroyed others.

In the neighbourhood of YPRES it was the artillery which, from the 15th to the 24th January, alone furnished material for the daily communiqué.

The enemy appeared to be much occupied with the repair of his trenches, the parapets which were falling in, and which he endeavoured to drain by means of balers and pumps. Their best rifle shots exercised their skill on our loopholes and periscopes.

The only infantry action during this period was the attack on our trenches to the East of YPRES on the 25th. At daybreak, without any artillery preparation, a German company deployed at 150 metres from our lines and advanced at the double against our trenches. Three companies in column followed a short distance behind, and a whole Brigade was massed in rear. Thanks to the vigilance of our soldiers the attack was immediately stopped by heavy infantry fire, which was at once supported by our batteries.

The German officer commanding the leading company was one of the first to fall. In a few moments some 300 bodies lay on the ground. Several men, who could not extricate themselves from our entanglements, were captured; others crawled painfully back.

The prisoners (there were about 50 including two probationer officers) stated that the attack was to have been

supported by other units, but our artillery fire prevented their advance from the place of assembly. The losses of the company which held our trenches were insignificant.

The Belgian Army, which has been re-constituted with remarkable rapidity, made some progress in the neighbourhood of PERVYSE, as indicated in the communiqué of the 25th January. Its artillery has taken an effective part in the daily artillery duels along the Yser front. It should be observed that the German heavy artillery severely bombarded the pretty little town of FURNES, which is so rich in artistic and historical monuments.

A SEVERE CHECK TO THE GERMANS AT LA BASSEE.

Our British Allies have been very heavily attacked on either side of the LA BASSEE Canal. The enemy at the same time attempted diversions at several points on our front between the BETHUNE-LA BASSEE road and NOULETTE.

At 8 a.m. a German Battalion turned the British out of the trench which they occupied in front of CUINCHY. A few minutes later GIVENCHY was attacked, and the enemy gained a footing in the village.

The British commander immediately ordered three counter-attacks which were supported by the French artillery. By 3 p.m. all the trenches lost in the morning were retaken. Five times the German, renewed the assault, but were repulsed. Their losses amounted to at least two battalions, many hundred dead being left on the ground. At night, a fresh attack was also repulsed. The German advance was completely checked as far as the British were concerned.

On the French side there was a slight withdrawal in the morning in consequence of the temporary retirement of the British; but 20 minutes later we re-took the trench which we had lost. It was a good day for the Allies.

THE FIGHT AT BLANGY.

Between LA BASSEE and ARRAS there has been considerable activity on the part of the artillery, and there were several infantry attacks all of which were repulsed. The

most important engagement took place on the 16th at BLANGY. Only a few of our companies were concerned in it, three actually being engaged. The details are as follows:—

On the 16th January shelling began during the morning, and this gradually increased until it became very heavy. Guns of all calibres took part in it: 7'7, 10'5, 15 and 21 cms. Minenwerfer also were in action, and threw a score of bombs some three feet long on to the foundry and malt-house of BLANGY. The effect of this was extremely destructive.

One of these bombs fell on a barricade in the street and killed a Lieutenant in charge of a machine gun.

The whole of the ground between the Scarpe and Blancs Murs road, the road from BLANGY to TILLOY and our barricades was swept with fire.

About 12-30 p.m., the German artillery increased its range, which led us to anticipate an infantry attack. The companies in reserve were ordered to hold themselves in readiness and the necessary arrangements were made.

About 2-30 p.m. the attack came, directed on the foundry and malt-house on the South side of the street. The enemy's infantry advanced along the Scarpe by the RUE DE BLANGY, leaving the Mur Rouge to the West of the Farm.

The advanced defences of BLANGY alone had not been effected by the bombardment. Immediately behind them, the front of the foundry, the houses which had been burned and the MUR BLANC were completely demolished, and could not be used; they formed a considerable obstruction to the men in the advanced trenches. These were attacked by hand grenades, and were unable to hold their ground.

A few men succeeded in withdrawing, others were killed or captured after having been wounded. All the officers and men in these advanced trenches performed their duty admirably.

Under these circumstances the Germans were able to occupy the first building of the foundry, North of the road, and on the South of the road they advanced as far as MUR BLANC, which they occupied.

At this moment, about 3-30 p.m. the counter-attack was ordered, with one company in support.

Three companies which had just arrived, took up a position in the second line of defence.

By means of successive attacks in the different workshops of the foundry, sometimes firing and sometimes using the bayonet, our troops regained the whole of the ground which had been lost and re-occupied their original positions.

On the South side of the road fire from loopholes on the first floor of the malt house enabled our men to advance, and here also we re-occupied our original positions.

About 5 p. m. the situation was completely re-established.

THE IMPERIAL HOPES ARE DISAPPOINTED AT LA BOISSELLE.

Between ARRAS and the AISNE, LA BOISSELLE has always been the scene of any activity. On the 18th a prisoner gave the reason for this, stating that the Emperor William had ordered that we should be driven out of LA BOISSELLE on the anniversary of the foundation of the empire. The Emperor had also promised a reward of 700 marks (£35) to anyone capturing a French machine gun.

The 700 marks have not had to leave the Imperial purse as no machine gun has been captured. As for the foundation of the empire, it has only been commemorated by the repulse of nine German attacks.

The only one which succeeded temporarily, thanks to a fire produced by the explosion of a small depot of melinite, was driven back half an hour later. After the engagement the cemetery at LA BOISSELLE was full of dead Germans, among whom were several officers who fell vainly endeavouring to comply with their sovereign's wishes.

In addition to the local results reported in the daily communiqué, important and continuous successes on the part of our artillery have to be recorded in the whole of this sector. Observing stations, trenches, machine guns and Minenwerfer have been fired on in succession; nothing remains of them.

German prisoners confess that the superiority of our artillery is becoming more and more marked. They believe that both the number and the quality of the projectiles of their batteries will shortly be diminished.

THE GERMANS POWERLESS IN FRONT OF SOISSONS.

In the Soissons sector, the absence of any important operation during the last eight days is worthy of attention. When on the 14th January, the German communiqué announced a great victory, while the French communiqué reported a local and unimportant repulse, some people became a prey to pessimism. Let them examine the facts.

In spite of the great success to which they lay claim, the Germans have been unable to make any advance since the 14th. They have not even attempted anything except a small night attack on our bridge-head at VENIZEL—an attack which was repulsed and which resulted in the enlargement of our bridge-head. The inability of the Germans to exploit the temporary and limited advantage which they gained by the rise of the AISNE is therefore conclusively proved.

To the west and to the east of SOISSONS, the last 10 days have been marked by a few artillery and infantry engagements which resulted in our favour.

It should be noted "en passant" that it is untrue that the military authorities have at any moment ordered the population of SOISSONS to evacuate the town.

THE ENGAGEMENTS OF PAISSY AND BERRY-AU-BAC.

Between SOISSONS and REIMS, the enemy has been fairly active. He has bombarded our first line trenches, which are close to his own, with shell of large calibre which have inflicted some losses.

He has attempted on several occasions to take advantage of this and has made several infantry attacks which have invariably been repulsed.

Local engagements of this nature took place on the 16th January near PAISSY and from the 20th to the 23rd near BERRY-AU-BAC.

At PAISSY, the Germans, after a heavy bombardment and the explosion of three mines which formed two breaches in our trenches, dashed forward to the assault. They had only a short distance to cover as our lines are only 20 metres away from theirs and the wire entanglement is common to both sides. Their attack was made by four companies preceded by men armed with revolvers and furnished with hand grenades. The attacking troops had their entrenching tools with them which revealed the intention of occupying our trenches.

On our side only two companies were engaged. As soon as they could, they advanced, and drove the Germans from their trenches and from the crater formed by the mine. Two other companies held in reserve did not have to be employed. We found about 100 dead Germans on the ground and numerous wounded, many of whom regained the enemy's lines. On our side there were 40 killed.

On the 20th January, an action began at BERRY-AU-BAC which lasted three days. The bombardment began about 4 p.m., destroyed our first line trenches, causing us a loss of some 20 men, and was followed by an infantry attack, which succeeded. We lost our advanced trenches, which were held by one and a half sections of infantry. The enemy established himself there but was unable to advance.

On the 21st, at 8 a.m. we counter-attacked, but the enemy held his ground. We counter-attacked again at 11 a.m. and re-captured two of the trenches, and made some 40 prisoners. The other trench, which remained in the enemy's hands, blocks the dyke between the lateral Canal and the AISNE and the Canal to the north-west of Point 108. It had to be retaken.

This attack took place on the 23rd. We only put in one company, which was entirely successful without any supports, a score of prisoners being captured.

The trench was thus once more in our possession. The enemy immediately shelled it. This was the beginning of an artillery duel which lasted from 7 to 11 p.m. Our heavy artillery gained superiority of fire. In the evening a

German company counter-attacked but was repulsed with heavy losses.

On the 24th, there was another bombardment but no attack. We had gained the day.

It is advantageous to describe these engagements in some detail, although they are unimportant, because in the first place they reflect great credit on our troops, and in addition they give an idea of what, owing to the weather conditions, the engagements of the last 10 days have been like along the whole front from the point of view of terrain, numbers, losses and results.

The great activity of the artillery on both sides in this sector should be noticed. Ours has been very successful and has nearly always been able to fire on the German artillery.

OUR SUCCESSES MAINTAINED IN FRONT OF PERTHES.

In the area PRUNAY-SOUAIN-PERTHES-BEAUSEJOUR-MASSIGES, the enemy in vain tried to retake the important positions captured by us during the preceding weeks. Not only did he fail in every case, but in addition to consolidating our successes we made fresh progress at certain points, especially near PRUNAY, BEAUSEJOUR and MASSIGES.

Owing to bad weather, rain, snow, mud, the commander decided not to push our advantages any further. The more so as a thick fog hindered our artillery fire during the whole of this period. Consequently our fire could only be intermittent. On the occasions when we were able to fire we obtained successful results, blowing up ammunition depots, driving the enemy out of their trenches, and dispersing troops assembling.

The hostile batteries have been fairly active but have not caused us serious loss. The German infantry made about a dozen local attacks which were all repulsed. Our superiority, evidenced by our successes, has thus been indisputably maintained.

THE STATUS QUO IN ARGONNE.

The fighting in the ARGONNE has centred about St. HUBERT and FONTAINE MADAME. Both as regards numbers and locality, it has been extremely local. The Germans made about fifteen attacks, to which we responded by counter-attacks. From the number of corpses remaining on the ground, it can be estimated that the enemy's losses have been heavier than our own.

As a result, the Germans gained rather less than 100 metres of advanced trenches in one portion of the front. We in our turn gained rather more than 100 metres close to the same locality. In neither case are the gains of any importance.

There, as elsewhere, it is a case of company combats. Fairly heavy artillery duels have taken place from time to time in which our superiority was indisputable,

OUR PROGRESS IN THE BOIS LE PRETRE.

In the BOIS LE PRETRE N. W. of PONT A MOUSSON, we obtained an important success, which, however, we were not able to maintain as a whole, but of which the material results remain with us. Our continuous progress in this wood, which two months ago was entirely in German hands, has been previously related. In spite of the difficulties of the ground, we have advanced foot by foot, and have now captured almost the whole of this wood, except for a portion which the forest maps call by the name of QUART-EN-RESERVE. It is the latter portion in which we gained a footing on the 17th. With one rush our men captured several of the enemy's field works, and repulsed a counter-attack made by the Germans in the afternoon. We took about the equivalent of a company prisoners as well as several officers and under officers.

On the 18th we made fresh progress and took another field work, making prisoners of a German section and taking in all 500 metres of hostile trenches.

From the 19th we pushed forward about 100 metres in front of these trenches and during the advance were

able to estimate the enemy's losses, for the whole of the ground gained by us was covered with dead. We counted more than 300, which means that the enemy must have lost more than a battalion in killed and wounded.

During the following days the Germans made desperate efforts to drive us out of the QUAR-TEN-RESERVE, but did not succeed. They have, however, retaken rather less than one third of the positions captured by us. In one of our advanced trenches, we had to leave an old gun which we brought up there. The tactical advantage, however, remains with us. We occupy more than 300 metres of the German works and the hostile line is seriously affected. Thanks to the depth and strength of their trenches, our men suffered very little from the terrific fire which has been directed on them since our last success. They are full of keenness and anxious at any cost to drive the whole of the enemy out from what they term "their" wood.

Progress made from day to day in the same area has already been noted, *i.e.*, 200 to 400 metres in the Bois d'APREMONT and near FLIREY. A German general was killed in the course of these operations.

THE ACTION OF HARTSMANNSWEILER-KOPF.

In the VOSGES, there have only been actions of secondary importance. One of these, which took place on the slopes of the HARTSMANNSWEILER-KOPF, was, in spite of the small number engaged (two sections at first, 4 companies during the following days), especially noteworthy on account of the difficulties of the ground and the dash shown by our Chasseurs. It is only a small episode of the war but a magnificent one.

On the top of the HARTSMANNSWEILER-KOPF we had a strong post which was heavily attacked on the 19th January by a large force. We wished to support them, but the matter was not an easy one. In this portion of the VOSGES the hill sides are a mass of rocks. Dense undergrowth forms an almost impenetrable obstacle. It was snowing, and the mist rendered it impossible to see more than 10 metres. As it was a matter of rescuing our com-

rades, our officers and soldiers had not a moment's hesitation. They knew that the detachment on the hill had only 300 rounds per man and they were anxious to arrive there in time. On the evening of the 19th, two companies managed to take up a position on the left of the enemy. Two more companies made progress against the enemy's right on the morning of the 20th. This progress, however, was very slow on account of the reasons indicated above, and also because the enemy had had time to construct a strong wire entanglement. Our men stumbled about on the ice and among the enemy's advanced defences, they attacked the whole day while the detached post still held on to the top. We heard them firing, and towards evening their bugler saluted us with the battalion call.

On the 21st, we advanced up the slopes, though slowly: our Chasseurs above still fired and we were in close contact with the enemy. Furious attacks were delivered in order to arrive in time. Two officers fell at the head of their men, but the ice and wire entanglements delayed us.

At nightfall nothing further was heard from the top. The brave handful of defenders had to yield before we were able to reach them. In spite of their terrible fatigue, though all hope of saving their comrades was lost, our Chasseurs continued to hold their ground in close contact with the German defences. They still remained there barring the enemy's advance and determined to retake the hilltop.

Although they have no real importance, such affairs are marked evidence of the bravery of troops.

On the remainder of the front in the VOSGES we repulsed hostile attacks, especially at WISSEMBACH and at UFFHOLTZ. Our outposts had several successes which have already been related in the daily communiqués, and are purely local incidents.

OPERATIONS OF AIRCRAFT.

In spite of the unfavourable atmospheric conditions our aeroplanes have continued to keep up a regular service of reconnaissance,

In addition, on several occasions they have pursued hostile machines. In CHAMPAGNE on the 18th January, Pegoud compelled a German biplane to return to its own lines. On the same day near SOISSONS, an Aviatik was chased and apparently hit and had to land suddenly within the German lines. On the 21st January three Aviatiks, which were flying over the neighbourhood of THANN, were shot at and forced to return.

On the 22nd January, 8 to 10 German aeroplanes set out to throw bombs on DUNKIRK. The French squadron, as well as a Belgian machine and some English aeroplanes, immediately went up. The Germans turned back, and one of them was hit by an English bullet and landed in our lines near ZUYDCOOTE.

On the 18th January, two more German machines had to land in our lines; one with engine trouble, the other with a broken propeller. Two days later two other hostile machines had a similar mishap and on the 25th the Belgians shot down another.

Among the bomb dropping operations carried out by our aeroplanes, the fight made during the night of the 22nd-23rd January should be specially mentioned. Several bombs were dropped on German cantonments in the neighbourhood of LA FERRE, where they caused great confusion. Star shells were sent up by the enemy and his infantry and artillery fired without result. Machines and aviators returned intact.

FROM THE 27TH JANUARY TO THE 6TH FEBRUARY.

The last period of ten days has been a period of quiet. The few engagements which have taken place have only been minor ones on very narrow fronts, and have had no effect on the general operations.

THE EMPEROR'S BIRTHDAY.

Reports from various sources announced that there would be attacks on a large scale on the Emperor's birthday, the 27th January. Such attacks did not materialize.

Nevertheless, the enemy undertook a few offensive operations which are only worth mentioning on account of the heavy losses suffered by the Germans. These attacks,

or at least some of them, began before the 27th and continued till the 28th. Others were of shorter duration. At several different points, at LA BASSEE, PERTHES, BAGATELLE and in WOEVRE, we found a number of dead, which, having regard to the proportion which is generally admitted of 4 wounded to 1 killed, allow the German losses during these 3 days to be estimated at 20,000.

It is desirable to repeat this number, which has been denied by the German General Staff, and which is indisputable.

It is impossible to perceive any logical connection between these attacks or to trace in them any idea of a general scheme of operations. If they really had as their object merely the celebration of the Emperor's birthday, one could understand their disjointed nature; but whatever may have been the reasons for them, the fact remains that they produced no result.

BRILLIANT ENGAGEMENT IN THE DUNES.

It has previously been explained how we succeeded in establishing on the right bank of the YSER an important bridge-head several kilometres in length between SAINT-GEORGES and the sea.

Our attack of the 28th was made with the object of reconnoitring the enemy's defences in detail, as we had only a very general idea of them. The principal "point d'appui" of the German right, which rests on the seashore, is the Grande Dune (dune 17) containing several bomb-proof shelters and three or four lines of trenches with chevaux-de-frise and wire entanglements. Next to the Dune, in the POLDER, a similar defensive system, which is equally strong, connects the defences of the dune with those of LOMBARTZYDE, to the north of the area covered by the inundations.

When we attacked on the morning of the 28th January we did not expect to pierce the defences of the Grande Dune. Nevertheless, we gained a footing there in the course of a day's fighting, which, though of secondary importance as regards the numbers engaged, was a remarkable one, thanks to the great courage of our troops.

The troops employed consisted of three companies which attacked the POLDER, while a fourth the Grande Dune. The attack, which was prepared by our artillery and by infantry reconnaissances, began at 9-0 a. m.

After a fire fight of half an hour's duration, our columns left their trenches and made a general assault along the whole front. They had no difficulty in capturing the first line of trenches, which were full of water and unoccupied. Without halting at the first line trenches, our men pressed forward along the pavée road, where some 40 metres away many German soldiers were taking cover in the shelters. The majority of these were despatched with the bayonet, but at this moment, and before they could occupy the positions, our men came under enfilade fire, and were forced by two counter-attacks to retire to their original positions.

In the centre, with marvellous rapidity they succeeded in constructing cover and in preparing defensive posts where they held their ground.

On the right, beyond the German first line trenches, they took up a line behind some natural cover, which unfortunately, was not proof against the enemy's artillery and machine gun fire. In spite of the destruction of the parapet, our men, with admirable tenacity, held the position which they had captured until the evening. But during this time, the most interesting episode of the day began further to the left.

When the attack on the POLDER was developed, two sections pressed forward to the Grande Dune. One of them even advanced down the reverse slope, where it found itself exposed to heavy fire from another crest behind the first one. At the same time, it was fired on by machine guns from the seashore. The section lost heavily, but the six survivors, one of whom was a non-commissioned officer, held their ground in the small work constructed by the Germans on the south-west slope of the Grande Dune.

With admirable tenacity they held their ground here, but all six of them were killed one after the other in the course of the afternoon.

In order to support them, their comrades constructed a communication trench between the small work and our old trenches. At 1. 0 p.m. our men made a fresh effort along the communication trench. Well supported by our guns they succeeded in gaining the small work, but a counter-attack of some strength recaptured it from them a few minutes later.

We thus retain only the exterior portion of the Dune, but we have accurate knowledge of the German defences.

Near the small work we counted more than 300 bodies of the enemy, and we captured some 50 prisoners, including two 2nd Lieutenants.

SUCCESS OF THE BELGIAN ARTILLERY.

Though no important infantry engagement has taken place on the front of the Belgian Army, the artillery combat on that front has been particularly heavy.

Our Allies replied most successfully to the enemy's fire. On the 27th January, their batteries silenced the German guns in the neighbourhood of MERCKEM and scattered several working parties. On the 28th, they succeeded in setting fire to a farm which was one of the enemy's "points d'appui." On the 30th, the Belgian artillery stopped the work on the fortifications which the Germans were carrying out near LUYGHEM. On the 5th February, it destroyed the enemy's entrenchments North of DIXMUDE.

The Germans shelled chiefly NIEUPOORT and the villages of RAMSCAPELLE and NEUVECAPELLE. On the 5th February, the Belgian artillery having fired on CHISTELLES, they bombarded FURNES.

The only infantry engagement which the Belgians have had was the repulse of a small infantry attack on the YSER on the night of the 3rd-4th February.

The Belgian Army is in splendid condition, both physically and morally.

THE BRITISH REPULSE THE GERMANS AT LA BASSEE

Fairly heavy engagements took place on the 29th and 30th January near LA BASSEE in continuation of those which have previously been recorded.

All trenches temporarily lost by the British and ourselves have been entirely recaptured.

The German attack began at 7-30 a. m. on the 29th January. It opened with a vigorous bombardment and heavy rifle fire on the flank of the British Army north of the LILLE road. At 9-0 a. m. a strong body of the enemy, in close formation, advanced along this road. It was immediately fired on by machine guns and artillery and was forced to retire.

At 9-30 a. m., the enemy made another attack to the north of the road. This time the British right gave way and exposed our left. A section of infantry which was holding an advanced trench, was thus taken in reverse and put out of action. The Germans gained possession of this trench and held their ground there until the evening.

At this moment two British companies re-occupied the positions which they had lost in the morning. Our left accompanied the movement and joined up with the new trenches occupied by our Allies.

Our situation was, however, not a good one, for these trenches were inferior and were also enfiladed by the German trenches between the BETHUNE-LA BASSEE road and the canal. A further attack was, therefore, a necessity, and it was decided that this should take place on the 30th.

At 7.15 a.m. the enemy attacked a salient at the northern extremity of one of the British trenches and captured it. But our Allies made a series of counter-attacks with the bayonet, supported by our artillery. At the end of the day all our trenches had been recaptured and the situation was once more the same as it had been 48 hours previously.

On the 1st February, a party of the 173rd German Regiment having succeeded in capturing a British advanced post on the railway north-east of CUINCHY, a British battalion,

after an obstinate struggle, succeeded in re-occupying this point and also in advancing some distance beyond it, capturing a machine gun and occupying one of the enemy's trenches.

The German aeroplanes made a raid on HAZEBROUCK and BAILLEUL, killing a child in the latter. Apart from this, they only caused a small amount of material damage. British aviators dropped bombs on the German aerodrome at LINSSELLES.

TWO GERMAN CHECKS IN THE ARRAS SECTOR.

Between the LA BASSEE Canal and ARRAS, both the enemy and ourselves have continued an active use of artillery. Our artillery successfully prevented hostile working parties from repairing their trenches which had been destroyed by our shells; the German batteries on the other hand were unsuccessful in their attempts to obtain a similar result.

At different points, infantry attacks, in which one company at the most was engaged on each side, were of almost daily occurrence. We were always successful in holding our lines. The only two actions which were of somewhat more importance than the others, occurred on the 1st and 4th February.

On the 1st February, about 5-30 a.m., the Germans directed three attacks against the salient on the extreme left of our line at its junction with the British line. These three attacks were remarkable for the vigour and continuity with which they were pushed.

At intervals of a quarter of an hour, three successive waves, each composed of the equivalent of one company, swept towards our lines. Thanks to our cross fire, we broke the first two attacks, but the prolonged fire of the German and French artillery had literally smashed to pieces our barbed wire entanglement, to such an extent that the third German attack, following the second after ten minutes interval, succeeded in penetrating our first line trench.

Orders were immediately given for a counter-attack, which was executed at once. It was carried out from both flanks and in a few minutes the trench was cleared of the enemy at the point of the bayonet. The rapidity of our counter-attack disconcerted the Germans and very few of them succeeded in returning to their old positions. More than 200 bodies remained on the ground, which allows us to draw the conclusion that in this engagement the enemy lost at least three companies, killed and wounded. Among the bodies found in the trenches were those of several officers. Our losses on the contrary, were quite insignificant. We had 7 killed and 6 wounded.

On the 4th, a successful mining operation gave us the opportunity of making a local attack, which was entirely successful. We laid 5 mines beneath the enemy's trenches, and at 3-0 a.m. we exploded them. The enemy's works on the West of the LILLE-ARRAS road, to the north of ECURIE were thus destroyed. Immediately, three columns, (two of Zouaves and of African light infantry), each composed of 80 men attacked. They succeeded in occupying the craters before the Germans had made any attempt to retake the position. The trenches were repaired and the position connected with our front line by a communication trench. Since then we have established ourselves there strongly and have been subjected to no counter-attacks.

This purely local operation resulted in a considerable tactical gain for us. The German trench and the machine gun shelters, which we occupied and destroyed, enfiladed our advanced works. We set ourselves the task of ridding ourselves of this nuisance. We succeeded.

ARTILLERY SUCCESS BETWEEN THE SCARPE AND THE OISE.

Between the SCARPE and the OISE during the past ten days, nothing has occurred except artillery duels and very occasional infantry engagements.

A German attack in the neighbourhood of BELLACOURT on the 28th January was driven back with complete success.

But the attack was of but small importance as regards the number of men taking part.

On the 1st February, a similar attack to the north of HAMEL was repulsed.

Our artillery fire in this sector was particularly successful. It destroyed guns, Minenwerfer and machine-guns, demolished observation points and blockhouses, and seriously damaged hostile aircraft trying to fly over our lines, in a word, our artillery showed, along the whole of our front line, a marked superiority over the enemy's artillery.

CONTINUED INABILITY OF THE GERMANS TO ADVANCE ON THE SOISSONS LINE.

Events continue to show the inability of the Germans to derive any advantage from their pretended great success at Soissons at the beginning of January. We on the contrary, have widened and strengthened our bridge head at VENIZEL.

Artillery combats have been to our advantage. The German supply service at NOYON station has repeatedly been subjected to fire from our artillery, which produced great explosions. The enemy's trenches have also suffered much damage.

The enemy's fire, on the other hand, caused us no loss, beyond the destruction of a small blockhouse. A few shells fell on SOISSONS.

THE CREUTE ENGAGEMENT.

The CREUTE engagement began on the 25th January at 10-0 a. m. and developed during the whole of the following day. It was hotly contested, but with only insignificant results.

The Germans began by opening a fierce artillery fire and throwing bombs on our front line trenches, between HURTEBISE and BOIS FOULON. These trenches were occupied by some infantry units. Until 2-30 p. m. the bombardment continued with growing intensity, when it reached its maximum, destroying our barbed wire entanglements and parapets, and causing somewhat serious losses in our ranks.

The companies in reserve were preparing to come up, when, under the repeated shock of bombs and shells of heavy calibre, the roof of the quarry where they had taken shelter partly collapsed, walling them in. The enemy took advantage of this to make a violent attack against the whole of the zone which they had bombarded. They directed their efforts more particularly against HURTEBISE and CREUTE. This attack was carried out by 4 or 5 battalions in front line, with two regiments in reserve.

The enemy suffered considerable losses in attacking our trenches. The first units which advanced to the attack were entirely annihilated, their bodies being subsequently found by us. But the attack, which was sustained with great energy, succeeded at about 5-0 p.m. in capturing the left of our trenches.

In spite of the very heavy fire to which they had been subjected throughout the day, our infantry were determined not to tolerate the loss of the position, and in the evening two of our battalions retook all the trenches they had lost in the afternoon.

At the same time, the situation was modified by the damage caused by the fire of the enemy's artillery. The trenches we recaptured were entirely destroyed and had lost all defensive value. They were consequently less easy to hold if the enemy made fresh attacks. The enemy perceived this, soon attacked again and retook the ruined positions.

The caving in of the ground, by making communications extremely difficult and preventing the reserve companies from coming up to the first line in time, favoured the German operation.

At midnight, however, we made a counter-attack which reached the barbed wire entanglements, which the enemy had already erected in front of the position, and drove the enemy out of a part of BOIS FOULON, in which they were advancing. But our troops could not debouch from the wood, and were obliged to take up a position in the middle of it.

The recapture of our advanced trenches, which had been destroyed by the enemy's fire, being of no military value, the Commander decided not to renew the attacks, which would have cost more than we could have hoped to gain, but to throw up a strong barrier in the wood, at the point we reached in our last counter-attack, which had a marked advance. Our line was consequently withdrawn very slightly to the south along a front of some hundred metres.

During these two days we lost 1,000 men killed and wounded, we found over 800 bodies of Germans, making the enemy's total losses about 4,000 and we took many prisoners. Our soldiers fought with great courage, in spite of the depression that might have been felt by the falling in of the caves, where so many of their comrades were buried. There is no doubt that the falling in of these caves and the fact of the reserves finding themselves in a position which made it impossible for them to arrive in time, must be held responsible for the relatively high total of our losses.

Since then the Germans have made no attempt to attack our line of trenches, which, stronger than the former line, give good protection to the whole of the positions.

With the exception of this isolated engagement, which was rapidly localized by our counter-attacks, there has been nothing in the nature of an infantry attack in the LAON-CRAONNE-REIMS district. There has been an almost continuous artillery duel.

ENGAGEMENT NEAR PERTHES AND MASSIGES.

In the PERTHES-MESNIL-MASSIGES district there has been considerable activity during the past days, especially on the 25th and 30th January, the 1st and 3rd February and during the night of the 3rd-4th February.

On the evening of the 25th January, between 3-0 and 4-0 p. m., the enemy subjected the positions taken by us in December near Point 200 (west of PERTHES) to a violent bombardment. A few moments later they attacked our positions at four points simultaneously.

At two of these points, the attack, which was immediately checked by the fire of our artillery, was unable to debouch.

At the third point, the German sappers were successful in exploding a mine beneath one of our trenches, which enabled the attacking column to reach the trench, whence it was immediately driven by an energetic counter-attack. At the fourth point, the communication trench had been destroyed by the enemy's fire. Nevertheless, we were able to debouch and repulse the attack, inflicting very heavy losses on the enemy. The ground was covered with dead and all our positions were held in their entirety.

On the 29th January we were able by a surprise attack, to occupy a copse 1,500 metres to the north-east of MESNIL and succeeded in holding the position.

A similar advance was made on the 1st February 500 metres to the north-west of PERTHES. During the night of the 31st January to the 1st February we captured the outskirts of a little wood in advance of our front line. A trench was dug there, and the enemy, in spite of two counter-attacks, was unable to drive us back to our former position.

On the 3rd February, the Germans directed three attacks against our positions. Two were repulsed with complete success. The third enabled the enemy to occupy a part of our advanced trenches, which had previously been blown in by the explosion of mines. The first of these attacks was made between 11-0 a. m. and 12 noon, to the West of PERTHES. The Germans appear to have attacked at this point with three battalions. They attempted to debouch from the woods, but were immediately stopped by our artillery and infantry fire. Small bodies only of the enemy succeeded in leaving their trenches, in which they promptly took cover again.

Reinforcements then attempted to advance, but like the columns which attacked first, they were checked at once by our artillery.

The following night, at two different times, hostile groups were observed at the same point. They were immediately dispersed, without being able to advance.

The second attack, to the north of MESNIL-LES-HURLUS, began at 9-0 a. m. Four battlions took part in it. These four battalions were unable to leave their trenches.

At 9. 45 a. m. we noticed a considerable number of the enemy collecting in their communication trenches by catching sight of their bayonets. Our heavy artillery immediately opened fire, and the units massed in the communication trenches dispersed in disorder.

At 11. 20 a. m. new movements were reported in the enemy's lines. Our batteries did not give these movements time to develop. The Germans intended to recapture the mine craters occupied by us on the previous day. We maintained our position in these craters and established ourselves firmly there.

The third attack in front of MASSIGES was made possible by the explosion of two large mines underneath our advanced trenches, and was carried out by three regiments.

These three regiments in the first instance reached two of our field works, which had just been destroyed, and at certain points portions of them penetrated as far as our second line. They were, however, immediately counter-attacked and unable to hold on to our second line, where we are now strongly installed.

The advanced trenches that we have abandoned cannot now be held either by ourselves or the enemy, owing to the artillery fire in this sector. Several hundred German corpses were found on the ground.

As a whole, the enemy had not succeeded in gaining a footing in the position which he apparently wished to capture. We still remain masters of it, having localized the effects of the explosion of the mines and the resulting confusion.

During the day of the 6th of February we retook part of the trenches which had been destroyed.

IN THE ARGONNE.

Sharp fighting took place on the 27th, 29th, 30th, January in the Argonne. The enemy's losses were very heavy, and our own were also serious, but the position of the opposing forces has not undergone any change.

On the 27th January we repulsed three attacks in the neighbourhood of BAGATELLE. About 400 corpses were found on the ground.

On the 29th, at daybreak, we were attacked in the same neighbourhood by the 27th Württemberg Division, which must have engaged all four regiments, as dead of each of them were found on the ground.

This attack caused a slight withdrawal of our left. Our centre held its ground, but was very tried, for instead of taking advantage of the supporting line a few metres in rear it held its advanced positions to the last.

We made six successive counter-attacks during the day, and succeeded in retaking part of the trenches which the enemy had captured, and in consolidating the remainder of our line.

Our position remains unaffected.

Since then, in the same locality, we repulsed two attacks during the night of the 29th, one on the 30th, one on the 1st February, three on the 2nd and two on the 4th. Not one of these nine attacks succeeded in gaining an inch of ground. After the last of them, a vigorous attack on our part made some progress. The German losses were heavy.

FROM THE MEUSE TO THE VOSGES.

On the HAUTS de MEUSE and in WOEVRE, there is nothing of interest to report. German attacks at rare intervals and of slight importance have been repulsed.

Between the MOSELLE and the VOSGES, our patrols surprised the enemy on several occasions.

In the VOSGES a thick layer of snow, in some places up to the armpits, has hindered any important operations. The only actions that have taken place have been those of small units. They have established the value of our offensive

attitude, but we have no intention of going beyond this, owing to the natural obstacles encountered by the troops. For this reason no attempt has been made at any important extension of our front.

We gained ground, however, at certain points, especially about SENONES in the BAN DE SAPT, in the neighbourhood of ALTKIRCH and of AMMERTZWILLER. The mean progress made was from 200 to 400 metres.

These local combats have again demonstrated the energy and spirit of our troops. But none of the fighting requires special mention or is of a nature to modify the general situation on this part of the front.

OPERATIONS OF AIRCRAFT.

Since the 26th January, in spite of weather changes, our aeroplanes have flown daily and carried out their reconnaissances and bombing expeditions.

Even in foggy weather, flights have been made over the hostile lines; thus, in Alsace on the 31st January, one of our aviators, rising above the clouds, took advantage of a temporary clearing to throw bombs on Lutterbach station. On the same day in the Argonne, one of our aeroplanes flew below the clouds only 700 metres above the hostile trenches. The same dash was shown in night flights. On the 29th January, about 10-0 p.m., an aeroplane threw four bombs on some Headquarters, the presence of which was reported at Ostend. Some days afterwards news arrived that three German Officers had been killed by one of these bombs. On the 1st February we again bombarded Ostend by night at a height of only 1,100 metres.

On the 20th January, a night reconnaissance was carried out in the neighbourhood of LA FERRE and of LAON. The lights in the billets were extinguished on the approach of the aeroplanes. One of the latter descended to 500 metres and followed the line of the German trenches, dropping 18 90 mm. bombs.

Bomb dropping carried out by day was also successful.

On the 27th JANUARY, a park and body of the enemy's troops North of LILLE were hit. On the 30th January in ALSACE, four bombs were dropped on the CHATEAU HOMBURG (German Headquarters); eight on the BOIS DE HONNENBRUCH station; six shells on PAGNY station on the 30th January, fourteen on 31st January. On the 1st February, LUTTERBACH station was heavily bombed. On the 2nd February, an important electric power station serving the country round MULHOUSE, was struck by bombs from the air. On the 5th February, some aviation hangars at HARSHEIM were also hit.

Whenever the weather is calm and fine our aviators often meet hostile machines and there is no case in which the German machine has not taken to flight on meeting a French aeroplane. In the majority of cases the Aviatik turns immediately it perceives its enemy. More rarely a duel takes place. A fine example of an air battle is offered by the exploit of one of our aviators in the neighbourhood of CERNAY on the 2nd February last.

During a reconnaissance he gave chase to an Aviatik and twice obliged it to turn, thus hindering it from reconnoitring our lines. As he was about to regain his own landing ground, our aviator noticed another German machine flying towards BELFORT. He gave chase and forced it to return, then caught it up and exchanged shots with it, following it at a distance of about 150 metres as far as the suburbs of MULHOUSE. The German machine was forced to land before it could reach its own landing ground.

During their reconnaissances, our aviators have frequently suffered from the rifle and artillery fire of the enemy. Machines have been struck by bullets or pieces of shell, but the coolness of our pilots has brought them safely back to our lines, several times under very dangerous conditions.

On the 31st January, owing to engine trouble, one of our aeroplanes had to cross the enemy's lines at a height of 150 metres in the hilly country of HARTMAN-

SWEILER-KOPF. In spite of heavy rifle fire from the woods, the aviator was able to gain the valley of the THUR and to land safely in our lines.

In addition to the serious German losses suffered in the last ten days, an Aviatik was captured on the 29th JANUARY North of the MEURTHE, between LUNEVILLE and RAONI'ETAPE, and a machine was shot down on the 4th February near VERDUN.

UNITED SERVICE INSTITUTION OF INDIA

JULY 1915.

SECRETARY'S NOTES.

I.—New Members.

The following members joined the Institution between the 1st March and the 15th June inclusive:—

LIFE MEMBERS.

Major G. H. W. Dobbryn.	L. Middleton, Esq.
Lieut.-Colonel L. A. G. Haumer.	H. T. Keeling, Esq.
Major C. Melville.	

ORDINARY MEMBERS.

Lieut. N. A. Shove	Major K. D. Field.
R. B. Ewbank, Esq.	Major I. M. Little.
R. E. Holland, Esq.	A. H. Grant, Esq.
L. C. Porter, Esq.	Lieut.-Colonel H. T. Denny.
Major A. L. Stevenson.	Captain A. C. Woolner.
F. F. Lyall, Esq.	C. Stead, Esq.
Captain H. T. C. Ivens.	

II.—Tactical Problems.

In order to assist officers, working for Tactical Examinations the Institution has for issue to members only, at Rs. 5 each, schemes, which includes criticism and a solution by a fully qualified officer selected by the Council, 26 schemes are now available.

A number is allotted to each member applying for schemes, and solutions must be sent under this number to the Secretary, Simla.

III.—Military History Papers.

(i) In order to assist officers in the study of military history, the Institution has for issue, to members only, sets of questions on selected campaigns. The following papers are now available:—

- (a) One paper on the Waterloo Campaign.
- (b) Three papers on Callwell's Small Wars.
- (c) Two papers on the strategy of the Russo-Japanese War.
- (d) Five papers on the battles of the Russo-Japanese War.
- (e) Two papers on the Afghan War, 1879-80.
- (f) Two papers on the Crimean War.
- (g) One paper on the Indian Mutiny.

(ii)

Secretary's Notes.

- (h) One paper on the Shenandoah Valley Campaign, 1861-62.
- i) One paper on the Bohemian Campaign, 1866, to the Battle of Koniggratz, inclusive.
- (j) One paper on the Jena Campaign, 1806.
- (k) One paper on the Franco-German War, 1870.

The charge for these papers is Rs. 5 each, which includes criticism by fully qualified officers selected by the Council. A number will be allotted to each member applying for papers and answers must be sent under this number to the Secretary, Simla.

(ii) Pamphlets dealing with the Shenandoah Valley Campaign from April 1861 to June 1862, the Bohemian Campaign, 1866 to the battle of Koniggratz inclusive, and the Battle of Liaoyang, can be obtained from the Secretary, Price Re. 1 each, or Re. 1-2-0 per V.P.P.

IV.—Premia for Articles in the Journal.

Articles accepted for publication in the Journal are paid for, and a sum of approximately Rs. 400 is awarded for articles and reviews published in each Quarterly Journal.

V.—Library Catalogue.

The library catalogue revised up to 1st November 1912 is available. Price of catalogue Re. 1, or Re. 1-4-0 per V. P. P. A new catalogue is being compiled which it is hoped will be ready in August. List of Books since received are published quarterly with the Journal.

VI.—Northern and Southern Army Prize Essays.

The Council will award the sum of Rs. 150 each, on the usual conditions, for the best essays sent in from members of the Northern and Southern Armies by the 31st December 1915, on the following subjects selected by Army Commanders.

Northern Army.—"The provision of a reserve of officers for the Indian Army for future campaigns.

Southern Army.—(1) Under modern conditions, when a state of war exists, how to deal with a hostile alien population in our midst, or

(2) Discuss the question of Reserves for the Indian Army in time of war. Do the present regulations on the subject in your opinion require any modifications?

VII.—Gold Medal Prize Essay, 1914-1915.

The Council have chosen as the subject for the Gold Medal Essay for 1915-16 the following:—

"The improvement in strength and efficiency of the Volunteer Force in India."

The following are the conditions of the competition:—

(1) The competition is open to all gazetted officers of the Civil Administration, the Navy, Army, and Volunteers. Who are members of the U. S. I.

(2) Essays must be printed or type-written and submitted in duplicate.

(3) When a reference is made to any work, the title of such work is to be quoted.

Secretary's Notes.

(iii)

(4) Essays are to be *strictly anonymous*. Each must have a motto, and enclosed with the essay there should be sent a *sealed* envelope with the motto written on the outside and the name of the competitor inside.

(5) Essays will not be accepted unless received by Secretary on or before the 30th June 1916.

(6) Essays will be submitted for adjudication to referees chosen by the Council. No medal will be awarded if the Council consider that the best essay is not of a sufficient standard of excellence.

(7) The name of the successful candidate will be announced at a Council Meeting to be held in August or September 1916.

(8) All essays submitted are to become the property of the United Service Institution of India, *absolutely*, and authors will not be at liberty to make any use whatsoever of their essays without the sanction of the Council.

(9) Essays should not exceed about 15 pages of the Journal, when printed exclusive of any appendices, tables or maps.

VIII.—Contributions to the Journal.

With reference to Army Regulations, India, Volume II, paragraph 483, and King's Regulations, paragraph 453, as amended by Army Order 340 of 1913, intending contributors to the Journal of the United Service Institution of India are informed that action to obtain the sanction of His Excellency the Commander-in-Chief to the publication of any article in the Journal of the United Service Institution of India will be taken by the Committee. Contributors are, therefore, responsible that the sanction of their immediate superior has been obtained, and this should be noted on all articles sent for publication. Articles need not be submitted in duplicate.

Contributors are requested to have their articles either typed or printed.

IX.—The Institution is prepared to supply members and units with manuscript type-written or printed pages from old Army Lists since 1800. Endeavours will also be made to procure extracts from the "Registers" prior to that date. The following will be the rates charged :—

Manuscript copy of each page	...	...	Re. 1 0 0
Typewritten or printed copy,* per page	...	...	Rs. 2 0 0
Binding if required	...	...	Extra.

*If facsimile of *type* is required the price of printed pages will range from Rs. 5-8 to Rs. 2-12 per page, according to the amount of matter on each page. The higher rate being charged for pages similar to those of the Indian Army in the current Army List.

X.—War Map.

War Maps are on view in the Reading Room of the Institution, with the position of the troops, so far as is known, marked with flags.

(iv)

XI.—Bad debts and Arrears

The Committee have had to strike off the sum of Rs. 1744-8-0 on account of various small sums due by members which they have not been able to recover, so the names of the defaulting members have been struck off the roll of members and it has been decided to post them in the Reading room for 6 months and to amend the rules to provide for this in future.

XII.—Amendment to Rules.

Rule VI—9. *Add at the end* "He shall be informed of the fact by registered letter and his name shall be posted in the Reading Room for six months, or until his account is paid."

XIII.—Annual Subscriptions.

The Committee wish to invite the attention of members to the large amount of unnecessary correspondence and expense annually caused to the Institution by the difficulty in getting in the annual subscriptions. If members wish to resign their membership they have only to notify the fact in writing to the Secretary. If this is not done, it is presumed that they wish to remain members and the journal is regularly posted to their last known address.

Much inconvenience and unnecessary correspondence is also caused by the failure of members to notify their changes of address or to make any arrangements for the Journal to be sent after them, when they change their address.

The remedy for both these matters lies with members themselves, and it is for their consideration whether they agree to continue supplying the Journal to those who have not paid their subscriptions and to have the time of their staff largely taken up in issuing reminders and trying to trace addresses.

XIV.—Books Presented to the Institution.

The acknowledgments of the Council for the following presentations are hereby recorded.

Presented by Major E. G. S. Trotter. "The Battle of Gettysburg" by F. A. Haskell, 1908.

Presented by Captain Hon. M. W. R. de Courcy. "An Elucidation of several parts of His Majesty's Regulations for the Formations and Movements of Cavalry" 1803.

Presented by Major C. C. R. Murphy "History of the 12th (The Suffolk) Regiment, 1685-1913, by Lieut.-Colonel E. A. H. Webb.

Diary of the War.

(v)

Up to the 15th June 1915.

For further details regarding events from 28th June to 31st December see the April Number of the Journal of the U. S. I. of India,

28TH JUNE 1914. The Archduke Franz Ferdinand assassinated.

28TH JULY. Austria declared war on Servia.

1ST AUGUST. Germany declared war on Russia.

3RD AUGUST.—German ultimatum to Belgium. War declared between France and Germany. Neutrality of Belgium violated.

4TH AUGUST.—Great Britain declared war on Germany.

5TH AUGUST.—Germany declared war on Belgium.

6TH AUGUST.—Austria declared war on Russia.

8TH AUGUST.—French raid in Alsace, Servia declared war on Germany.

10TH AUGUST.—France declared war on Austria. Austrian invasion of S. Poland.

11TH AUGUST.—French retired from Alsace. Russian invasion of E. Galicia.

12TH AUGUST.—Great Britain declared war on Austria. Austrians invaded Servia.

15TH AUGUST.—French invade German Lorraine. Fall of Liege.

16TH AUGUST.—British Expeditionary Force completed its landing in France. Russian first invasion of E. Prussia.

19th AUGUST.—Austrians defeated by Serbs in Servia. 2nd French invasion of Alsace.

20TH AUGUST.—Germans occupied Brussels.

21ST AUGUST.—Battle of Charleroi commences.

22ND AUGUST.—French driven from Charleroi.

23RD AUGUST.—Japan declared war on Germany. French driven out of Alsace and Lorraine.

24TH AUGUST.—Commencement of the retreat from Mons. Austrians driven out of Servia.

25TH AUGUST.—Fall of Namur.

28TH AUGUST.—Cruiser action off Heligoland. Russians defeated at Tannenberg.

3RD SEPTEMBER.—Russians occupied Lemburg.

4TH SEPTEMBER.—Russians commenced the offensive in S. Poland.

5TH SEPTEMBER.—End of retreat from Mons.

7TH SEPTEMBER.—Fall of Maubeuge.

8TH SEPTEMBER.—German retirement to R. Aisne commenced.

11TH SEPTEMBER.—Australians occupied Bismarck Archipelago.

12TH SEPTEMBER.—Beginning of battle of the R. Aisne. Austrians driven back to the R. San.

SEPTEMBER 17TH.—E. Prussia again clear of the Russians. German advance towards the R. Niemen.

SEPTEMBER 20TH.—Extension of opposing lines from the R. Aisne to the Channel commences.

SEPTEMBER 23RD.—Commencement of siege of Przemyśl.

SEPTEMBER 25TH.—The Australian forces announce the occupation of Kaiser Wilhelm's Land.

SEPTEMBER 26TH.—Indian Expeditionary Force lands in France. Repulse of 1st German attack on R. Niemen, and retreat of Germans to E. Prussia.

SEPTEMBER 28TH.—Battle on R. Aisne develops in to a stalemate. Siege of Antwerp commences.

OCTOBER 3RD.—1st German advance on Warsaw.

OCTOBER 9TH.—Fall of Antwerp.

OCTOBER 11TH.—2nd Russian invasion of E. Prussia.

OCTOBER 12TH.—Remains of the Belgian field Army reached R. Yser.

OCTOBER 13TH.—Germans occupy Lille.

OCTOBER 14TH.—Allies occupy Ypres.

OCTOBER 16TH.—Commencement of the battle of Ypres.

OCTOBER 23RD.—Russians completely repulse 1st German advance on Warsaw.

OCTOBER 28TH.—Russians advanced in Poland. Rebellion in South Africa.

OCTOBER 29TH.—Violation of Egyptian frontier by Turkish Arabs. Turks bombarded Odessa.

OCTOBER 31ST.—Bombardment of Tsingtau begins.

NOVEMBER 1ST.—H. M. S. "Monmouth" and H. M. S. "Good Hope" sunk in an action on the Chilian coast. Germans driven out of Poland.

NOVEMBER 3RD.—Russian invade Turkish Armenia, 1st Bombardment of Dardanelles.

NOVEMBER 4TH.—British reverse in German East Africa.

NOVEMBER 5TH.—Great Britain declares war on Turkey. Cyprus annexed.

NOVEMBER 7TH.—Fall of Tsingtau. British land in Mesopotamia.

NOVEMBER 9TH.—H. M. A. S. Sydney sank the German cruiser Emden.

NOVEMBER 14TH.—Death of Lord Roberts.

NOVEMBER 17TH.—End of the battle of Ypres.

NOVEMBER 21ST.—2nd German attack on Warsaw.

NOVEMBER 22ND.—British occupied Basra.

NOVEMBER 28TH.—Russian advance on Cracow.

NOVEMBER 29TH.—King George crossed to France.

NOVEMBER 30TH.—Turkish invasion of Caucasia commences.

DECEMBER 2ND.—2nd Austrian invasion of Servia.

DECEMBER 3RD.—Second French invasion of Alsace.

DECEMBER 5TH.—King George returned to London. Battle commenced S. E. of Cracow.

DECEMBER 7TH.—Rebellion in S. Africa suppressed.

DECEMBER 8TH.—The Servians took the offensive along their whole front. A British squadron off the Falkland Islands sunk the German cruisers "Scharnhorst," "Gneisenau," "Leipzig" and "Nürnberg";

DECEMBER 13TH.—British submarine B-II sunk the Turkish ironclad "Messudieh"

DECEMBER 14TH.—Austrians again driven from Servia.

DECEMBER 17TH.—Egypt is placed under the protection of Great Britain.

DECEMBER 18TH.—Prince Hussein Kamel Pasha is appointed Khedive.

DECEMBER 23RD.—2nd German attack on Warsaw stopped.

DECEMBER 25TH.—British air raid on Cuxhaven. Turkish invasion of Caucasia checked.

DECEMBER 26TH.—Austrian defeat in Galicia.

JANUARY 1ST.—H. M. S. Formidable is torpedoed by a German submarine in the English Channel; Violent artillery engagement on the dunes at Nieuport and Zonnebeke. An Army Order defines the new organization of armies, each consisting of three Army Corps.

JANUARY 2ND.—Prolonged rainfall impedes operations in Flanders. French make progress near Vermelles and gain a little ground at many points. Russians take Turkish positions in the Caucasus, win battles on the Bzura, and continue the advance in the Bukovina. A Nairobi cable reports successful operations at Dar-es-Salaam by H. M. S. Fox and Goliath. Turkish transport sunk by mine in the Bosphorus.

JANUARY 3RD.—Russians completely defeat Turkish forces concentrated at Ardahan in the Caucasus, destroying two Army Corps and capturing the Commander-in-Chief, divisional generals, staff, thousands of soldiers, and great quantities of material.

JANUARY 4TH.—French advance 500 metres opposite Nieuport and consolidate their position at St. Georges. They also carry Steinbach in Upper Alsace. German airmen active over British camp in South-West Africa. The London Stock Exchange, closed since July 30, reopened.

JANUARY 5TH.—Russians defeat enemy in the Mlawa region (North Poland), near the Prussian frontier. Turkish transport sunk in the Black Sea.

JANUARY 6TH.—The House of Lords reassembles, and Lord Kitchener reviews the situation. Russians reach the frontier between Bukovina and Hungary, and capture 1,000 Austrians.

Germans, 30 miles from Warsaw, resorting to sap and mine, to approach Russian positions. Three Zeppelins off the coast between Calais and Gravelines.

Russians defeat the Turks at Sarikamysh in Caucasia.

JANUARY 7TH.—Enemy repulsed in the Argonne, and in the Verdun and Steinbach regions, and French advance towards Mulhausen announced.

JANUARY 8TH.—Three lines of German trenches taken at Soupir, and held against counter attacks, captured section extending about 600 yards.

JANUARY 9TH.—The King and Queen pay a visit to wounded Indian troops in hospital at Brighton. Official proofs circulated of Belgian neutrality until invasion. Germans bombard Soissons Cathedral.

JANUARY 10TH.—Sixteen German aeroplanes seen in the English Channel, but owing to bad weather they return towards Dunkirk, upon which 30 bombs were dropped during the day. Enemy aeroplanes prevented by French airmen from flying over Paris.

JANUARY 11TH.—Publication of text of the interim Note despatched on January 7 in reply to the Note from the American Government on the subject of contraband cargoes. Russians slowly advancing on East Prussia.

JANUARY 12TH.—Bad weather impedes operations in Flanders. Fierce fighting on the east of Soissons.

JANUARY 13TH.—Count Berchtold, Austro-Hungarian Minister of Foreign Affairs, resigns, and is succeeded by a Hungarian, Baron Stephan Burian. Tabriz taken by the Turks. About 100,000 Turks near Erzerum check Russian advance. Severe earthquake in Italy, many thousands killed and injured. General Sir Douglas Haig and General Sir H. Smith-Dorrien made Grand Officers of the Legion of Honour.

JANUARY 14TH.—German concentrated attacks at Soissons, and recapture of ground which had been gained by the French. Russians making progress 45 miles east of the German fortress of Thorn. Swakopmund, the principal

Port of German South-West Africa, occupied by Union Forces.

JANUARY 15.—The Russians take 5,000 prisoners and nearly 10,000 heads of cattle from defeated Turks in the Caucasus.

JANUARY 16th.—French artillery drives Germans from trenches in the dunes, and ground is also gained near Perthes. Russians continue to advance on the right bank of the Lower Vistula. Turks driven out of Caucasia.

JANUARY 18th.—Copenhagen Correspondent estimates the German losses to date at $2\frac{1}{4}$ millions.

JANUARY 19th.—German airships attack Yarmouth, King's Lynn, Snettisham, and other Norfolk towns and villages. Snowstorms interfere with fighting in Flanders. Pursuit of the Turkish Army in the Caucasus continues.

JANUARY 21st.—Infantry actions in the Champagne district and French successes.

JANUARY 22nd.—A dozen German aeroplanes over Dunkirk, and one is brought down by the Allied airmen. British airmen drop bombs on Zeebrugge. M. Millerand, French Minister of War, inspects new Armies in England.

JANUARY 23rd.—Continuous fighting in Alsace and the Argonne, and slight progress by the French in the Nieuport area.

JANUARY 24th.—A British patrolling squadron, in the North Sea, sights three German battle-cruisers and an armoured cruiser, the *Blücher*, steering westwards. The German war-ships turned and made for home, but were pursued and brought to action. The *Lion*, flying the flag of Vice-Admiral Sir David Beatty, led the British line. The *Blücher* was sunk, and two German battle-cruisers were seriously damaged.

JANUARY 25th.—A Zeppelin shot down by the forts at Libau, and the crew captured. Fog interferes with fighting in Alsace, which has been in progress for some days. The British repulse an attack on Givenchy, near La Bassée.

JANUARY 26th.—Admiralty intimate that all the British ships and destroyers in Sunday's action have returned safely to port. Russian submarine damages German cruiser *Gazelle*

in the Baltic near Rügen. The King decorates the first Indian soldier to receive the Victoria Cross. Turkish advance on Egypt begun.

JANUARY 27TH.—Vice-Admiral Sir David Beatty's preliminary telegraphic report to the Admiralty on Sunday's action issued. German prisoners assert that the cruiser Kolberg was also sunk. Great Britain arranges to lend £5,000,000 to Rumania. Kaiser's birthday. The day was a good one for the Allies all along the front. All the German attacks were repulsed; all the Allied attacks made progress.

JANUARY 29TH.—Comparative quiet in the West. Russian advance in East Prussia on the line of the Memel towards Tilsit. Turkish advance posts reported at Katieh, and at points along the roads leading to the Suez Canal.

JANUARY 30TH.—Japanese sword of honour presented to King Albert in Belgium. Germans again checked by the British near La Bassee. Three enemy battalions repulsed, many dead left in front of British lines. German submarine off Fleetwood, on the Lancashire coast, sinks three British steamers,

JANUARY 31ST.—Heavy fighting in the Argonne, near Fontaine Madame. Russians advancing on Tabriz.

FEBRUARY 1ST.—Germans evacuated Cernay in Alsace. German attacks south of the lower Vistula repulsed and some trenches recaptured by the Russians. Russians force the Dukla Pass in the Carpathians and capture the G. O. C. and staff of the 30th Turkish division near Olty in Transcaucasia. Dynamite outrage on a railway bridge in Canada, culprit, a German Officer arrested in the U. S.

FEBRUARY 2ND.—German submarine attempts to torpedo hospital ship "Asturias." German attack on British near La Bassee repulsed. German destroyer sunk off Denmark by Russian submarine. Desperate attempt by 7 German divisions to pierce the Russian front opposite Warsaw. Turkish attack on Suez Canal at Tussum repulsed.

FEBRUARY 3RD.—British armed merchantman "Clan McNaughten" sunk in a gale. German merchant cruiser sunk

by H. M. S. "Australia" off Patagonia. French aviators dropped bombs on Lille aerodrome. Hard fighting near Westende, fleet cooperating. Russian advance on right flank of lower Vistula and in E Prussia. Turkish attack on El Kantara on the Suez Canal repulsed.

FEBRUARY 4TH.—Hard fighting in Poland, Austrians evacuate Tarnow. Final Turkish attack on Suez Canal by 12,000 men repulsed. Turkish army in full retreat losing 2,400 men, British took 652 prisoners, 3 machine guns and ninety camel loads of stores and ammunition. Second Australian contingent landed in Egypt. Total British casualties to date totalled 104,000.

FEBRUARY 5TH.—Germans proclaim the waters round Great Britain and Ireland to be a "Military Area;" protests from American, Dutch, Danish and Scandinavian press. Minor British success at La Bassée; German loss 1,000 British 200.

FEBRUARY 6TH.—Russians take the offensive on left bank of lower Vistula.

FEBRUARY 7TH.—Loss of German Navy officially reported to be 15,000, excluding the crew of the "Blücher." Loss acknowledged of 8 destroyers and 2 submarines, hitherto unreported and of the German cruiser "Friedrich Karl". Austro-German offensive commenced in E. Prussia and Bukovina. End of German advance on left bank of lower Vistula. Russians advance in the Carpathians.

FEBRUARY 8TH.—Hard fighting on the right bank of the lower Vistula. Russians advance on the lower Bzura R. and in the Carpathians.

FEBRUARY 9TH.—The "Breslau" bombards Yalta, the Russian Black Sea fleet bombards Trebizond.

FEBRUARY 10TH.—Germans advance in E. Prussia.

FEBRUARY 11TH.—The formation of a battalion of Welsh Guards sanctioned. Twenty four British Aeroplanes bombarded Bruges, Zeebrugge, Blankenburgh and Ostend. Germans advancing in E. Prussia and on right bank of lower Vistula in Poland.

FEBRUARY 12TH.—Hard fighting between the R. Niemen and lower Vistula.

FEBRUARY 14TH.—German attack near Ypres repulsed. Germans cut off a Russian Army Corps between Goldapp and Suwalki.

FEBRUARY 15TH.—Speeches in the House of Commons by Mr. Lloyd George and Mr. Churchill, Total naval losses in killed to date 5,500.

FEBRUARY 16TH.—Forty aeroplanes bombarded German positions at Ostend, Middlekirke and Zeebrugge. Niemen—Vistula battle continues.

FEBRUARY 17TH.—Three German airships wrecked in a gale. German submarines sink a British and a French merchant ship. Minor French success near Arras. Hard fighting at Les Eparges, east of Verdun. Niemen—lower Vistula battle and the fighting in the Carpathians continue.

FEBRUARY 18TH.—The day the German submarine blockade of the British Isles is to begin; nothing happened. Hard fighting at Les Eparges.

FEBRUARY 19TH.—A French ship torpedoed but not sunk in the Channel. German attack at Ypres repulsed. Hard fighting at Les Eparges, German advance between the Niemen, and lower Vistula checked and Russians assume the offensive. British and French fleets bombard the entrance to the Dardanelles.

FEBRUARY 20TH.—Germans torpedoed, but fail to sink a Norwegian merchant ship off Deal; they sunk a British merchant ship. Germans bombarded Rheims. Hard fighting at Les Eparges. Fighting in the Carpathians and South Galicia, Austrians occupied Stanislavof.

FEBRUARY 21ST.—German merchant cruiser "Kronprinz Wilhelm" sunk 4 British ships and 1 Norwegian in the Atlantic. A British ship torpedoed off the Isle of Man. Zeppelin drops bombs on Calais. French capture the contested redoubt at Les Eparges. Hard fighting on the north banks of the R. Bobr and Narev. Germans engaged Ossievitz. German submarine U. 21 shelled by an Admiralty Yacht off Fishguard.

FEBRUARY 22ND.—French warship sinks a German submarine off Boulogne, Russians recapture Jedwabno and Stanis-

lavof. The Russian corps, cut off near Suwalki on February 14th fights its way back to the main Army near Augustovo.

FEBRUARY 23RD.—American ship sunk off the German coast; Norwegian ship sunk off Dover; 2 British ships sunk off Beachy Head. Bombardment of the Dardanelles resumed, all the forts at the entrance reduced. Russian success between Batum and Khopa.

FEBRUARY 24TH.—A British ship sunk off Scarborough. Russian attacks on Praznitz.

FEBRUARY 25TH.—Russians take 2,630 prisoners near Praznitz.

FEBRUARY 26TH.—Russians recapture Praznitz, taking 5,428 prisoners.

FEBRUARY 28TH.—Blockade of German E. Africa commences.

MARCH 1ST.—Absolute blockade of Germany declared by England, 30 German and 20 Austrian Army corps located on the Eastern front, 47 German Army corps on the Western front. Attack on the Dardanelles interrupted by bad weather.

MARCH 2ND.—King George visits the British fleet. Russians defeat the Austrians on the R. Lomnitz taking 6,000 prisoners, Russians capture the Turkish port of Khopa. Attack on Dardenelles resumed.

MARCH 3RD.—The report, that a British collier, "Thordis," has rammed a German submarine, is confirmed; Russian captures in S. E. Galicia from 21st February 1915 to 3rd March 1915 amount to 18,675 prisoners and 5 guns, Allied fleets bombard the Dardanelles, Dikeli opposite Mytelene, and Smyrna.

MARCH 4TH.—U. 8, sunk by British destroyers, French destroyer shelled a submarine of the U. 2 type, British merchant ship "Alston" claims to have rammed a German submarine. Zeppelin U. 8 damaged near Tirlemont.

MARCH 6TH.—Bombardment of the Dardanelles continues, the "Queen Elizabeth" firing over the Gallipoli peninsula in co-operation with Allied ships inside the straits.

MARCH 7TH.—Russian Black Sea Fleet bombards Turkish ports, Greek Ministry resigns owing to King Constantine's refusal to declare war on Germany and her Allies.

MARCH 8TH.—Naval aeroplanes drop bombs on Ostend. Russians advance from Grodno region, Bombardment of Dardanelles continues.

MARCH 9TH.—H. M. S. "Ariel" sinks U, 21. Four British Merchant ships torpedoed. German Auxiliary Cruiser. "Prinz Eitel Fredrich" puts into an American port for repairs.

MARCH 10TH.—British Capture Neuve Chapelle, advancing about a mile and causing the Germans a loss estimated at 20,000. Report from Copenhagen states that the Germans admit the loss of 4 submarines since February 18th, and that 7 more were missing.

MARCH 11TH.—German attempts to recapture Neuve Chapelle repulsed. Minor Russian success at Lupkow.

MARCH 13TH.—Hard fighting at Neuve Chapelle. British successful taking 612 prisoners.

MARCH 14TH.—The French capture an important height N. of Perthes.

MARCH 15TH.—British Aeroplanes bombarded Westende.

MARCH 18TH.—Three vessels of the Allied Fleets in the Dardanelles sunk by mines, H. M. S. Ocean, and the Bouvet.

MARCH 20TH.—Successful operations by the Union Forces under General Botha.

MARCH 21ST.—Zeppelin raid on Paris. Dutch steamers Batavier V. and Zaanstroom seized at sea by the Germans and taken to Zeebrugge.

MARCH 22ND.—Fall of Przemyśl. Russians take 126,000 prisoners and 700 big guns.

MARCH 23RD.—Another Turkish raid on Egypt stopped.

MARCH 24TH.—British airman attack German submarine works at Hoboken, near Antwerp.

MARCH 25TH.—German submarine U 20 sunk. Dutch steamer Medea torpedoed off Beachy Head.

MARCH 27TH.—Capture by the French of summit of Hartmannsweilerkopf, in the Vosges.

MARCH 28TH.—The liner Falaba is torpedoed off Milford, about 112 lost. Russian Black Sea Fleet bombards outer forts of the Bosphorus.

MARCH 29TH.—West of the Niemen the Germans, who had attempted an offensive movement, checked.

MARCH 31ST.—Germans bombard Libau.

APRIL 1ST.—From the outbreak of the war to date the numbers of officers and men of the Royal Navy, Marines Royal Naval Reserve, and Royal Naval Volunteer Reserve killed, wounded, and missing are:—Officers: Killed 332; Wounded, 61; missing, 7; interned, 41; prisoners, 11; total 452, Men: Killed, 4,981 (including 57 mercantile ratings lost in H. M. S. Bayano); wounded, 640 (including 3 interned and 50 prisoners); missing, 72; interned, 1,524 (exclusive of wounded); prisoners 924 (exclusive of 50 wounded); total 8,141. Successful British air raid on Zeebrugge and Hoboken. Three Tyne trawlers sunk by German submarine U 20.

APRIL 2ND.—Communications, through Washington, between the British and German Governments respecting the treatment of captured submarine crews are issued by the Press Bureau. The German Government threatened reprisals if the British Admiralty segregates the officers and men recently rescued from two German submarines. Sir Edward Grey in his reply points out that as the crews of the German submarines were engaged in sinking innocent British and neutral merchant ships and wantonly killing non-combatants, they cannot be regarded as honourable opponents. A German aeroplane brought down near Soissons, the third in 24 hours. A Bulgarian force, described as consisting of "irregulars" and "Komitadjis," attacks a Serbian blockhouse and is repulsed.

APRIL 3RD.—In the Black Sea near the Crimean coast, the Russian Fleet exchanges shots at long range with the cruisers Goeben and Breslau.

APRIL 4TH.—Continued Russian progress and large captures in the Carpathians. Again little activity on the Western front.

APRIL 7TH.—From Petrograd news comes of a notable Russian success in the Carpathians. In the centre of this zone of fighting the Russians were able to advance to the

southern side of the Rostoki Pass. German line between the Meuse and the Moselle pushed back by the French.

APRIL 8TH.—The German armed merchantman *Prince Eitel Friedrich* is interned. The French gain ground in the St. Mihiel region. Allied naval attack on Enos is reported.

APRIL 9TH.—The Russian General Staff defines the position of the forces in the Carpathians. They hold the summits on a front of 70 miles from south of the Dukla Pass, to slightly north of the Uzsok Pass.

APRIL 11TH.—The Harrison liner *Wayfarer* is torpedoed off Scilly, but is safely towed into Queenstown and beached. German reinforcements in Carpathians. French aeroplane attack on Bruges.

APRIL 12TH.—Between March 19th and to-day on the whole Carpathian front the enemy, having suffered enormous losses, left in Russian hands in prisoners only at least 70,000 men, including about 900 officers. Further, our Allies have captured more than 30 guns and 200 machine-guns. A lull on the Western front. German threat to revenge on captive British officers the special treatment of German prisoners from submarines is carried out, 39 British officers being placed under military arrest.

APRIL 13TH.—According to the enemy's report the Russian offensive in the Carpathians has been arrested, but the fighting is still terrific.

APRIL 14TH.—A Zeppelin visits the North-East Coast in the Tyne district, doing little damage. French ascendancy again asserts itself in the Argonne. A Dutch vessel, the *Katwyk*, torpedoed, without warning, by a German submarine off the Dutch coast. She had a cargo of grain for the Dutch Government. Heavy fighting at Shaiba near Basra. British victories, and rout of 15,000 Turks, who abandon equipment, stores, and 700,000 rounds of rifle and 450 boxes of gun ammunition.

APRIL 15TH.—In the House of Commons to-day Mr. Tennant said that the latest total of war casualties reported up to April 11th was 139,347. (The total casualties were

given as 57,000 on October 31st and 104,000 on February 4th.) Field-Marshal Sir John French's dispatch (covering the period February 2nd March 20) published. British losses in the battle of Neuve Chapelle were 190 officers and 2,337 other ranks killed; 359 officers and 8,174 other ranks wounded; and 23 officers and 1,728 other ranks missing. The enemy left several thousand dead on the battlefield, and over 12,000 wounded were removed by train. Thirty officers and 1,657 other ranks of the enemy were captured. In Alsace to the north of the Lauch the French progress 1,630 yards. French airmen drop bombs near Metz.

APRIL 16TH.—A German aeroplane drops bombs in the Faversham-Sittingbourne district of East Kent during the afternoon. Earlier in the day an enemy dirigible dropped bombs on Essex and Suffolk, slight material damage done. Three aeroplanes attacked Turkish camps in Sinai. The actions in the Carpathians concentrate towards Rostoki.

APRIL 17TH.—British submarine E. 15, while attempting a reconnaissance of the Kephez minefield in the Dardanelles, runs ashore near Kephez Point. The crew are rescued and made prisoners. The transport Manitou, carrying British troops, is attacked by Turkish torpedo-boat in the Aegean. The torpedo-boat, chased by a British cruiser and destroyers, is run ashore. S. E. of Ypres the British explode a mine under Hill 60 on the Ypres-Comines Railway, and take the hill.

APRIL 18TH.—In the Dardanelles the submarine E 15, aground off Kephez Point, is in danger of falling into Turkish hands. To avert this two picket boats, manned by volunteer crews, torpedo the submarine and render it useless. The boats were subjected to a heavy fire at short range. Lieut.-Commander Eric Robinson is promoted Commander for his services on this occasion. Lieutenant Garros, the French airman, is captured in Flanders. Two more German aeroplanes are brought down near Ypres, making five in all since the 15th inst.

APRIL 19TH.—The French make appreciable progress in Alsace, advancing along both banks of the Fecht.

Fierce fighting near Ypres, the enemy trying at all costs to retake Hill 60.

APRIL 20TH.—The Germans make heavy artillery attacks in the hope of retaking Hill 60. Keetmanshoop, a central position in German South West Africa, occupied by Union forces.

APRIL 21ST.—Extremely violent efforts by the Germans to retake Hill 60. The French line is slightly advanced in the St. Mihiel area.

APRIL 22ND.—The enemy develops an attack on the French troops to the north of the Ypres salient. This attack is preceded by a heavy bombardment, the enemy at the same time making use of a large number of appliances for the production of asphyxiating gases. The French have to retire from the gas zone. Overwhelmed by the fumes, they fall back to the R. Yser. French progress south of St. Mihiel.

APRIL 24TH.—The Ypres struggle continues. The Canadian Division recaptures four 4.7 guns they had lost. German attacks at Les Eparges repulsed.

APRIL 25TH.—The Allied forces effect a landing on both shores of the Dardanelles. At Ypres the Germans, still using asphyxiating gases, deliver attacks which are repulsed and the Allies regain ground.

APRIL 26TH.—British take the offensive and make progress, all attacks north-east of Ypres being repulsed. British airmen destroy Courtrai railway junction, and successfully attack the Tourcoing Roubaix, and other railway lines. The summit of Hartmannsweilerkof is recaptured by the Germans, and retaken from them by the French.

APRIL 27TH.—Allied forces make good their footing on the Gallipoli Peninsula and the Asiatic side of the Dardanelles. On the Flanders front the Germans are forced back and acting on the defensive. The French armoured cruiser Leon Gambetta torpedoed in the Otranto Straits, 600 officers and men drowned.

APRIL 28TH.—German offensive at Ypres "definitely stopped."

APRIL 29TH.—Battle on the Plain of Troy; advance of the French. Further progress by the Allies on the Yser.

APRIL 30TH.—Air raid on Ipswich and Bury St. Edmunds: no loss of life.

MAY 1ST.—H. M. S. Recruit, a destroyer, sunk by a German submarine and 2 German torpedo boats sunk by British destroyers off the Belgian coast. Dunkirk shelled by long range German howitzers. A German attack on Hill 60 repulsed. Great Austro-German offensive movement commenced in W. Galicia. Russian fleets bombard the entrance to the Bosphorus. Turkish attacks repulsed in the Gallipoli Peninsula.

MAY 2ND.—Heavy artillery firing near Ypres. In W. Galicia the Russians driven across the R. Dunajec. Turkish attacks repulsed and Allies advanced in the Gallipoli Peninsula. S. African forces advanced to within 68 miles of Windhoek in German S. W. Africa.

MAY 3RD.—Russians defeated the Turks in W. Persia 3,500 dead Turks picked up on the battle field.

MAY 4TH.—German attack repulsed North of Ypres.

MAY 7TH.—Cunard liner Lusitania sunk by a German submarine off the Irish coast, 1,457 casualties including 139 Americans. H. M. S. Maori, destroyer sunk by a mine off the Belgian coast.

MAY 8TH.—Anti-German riots in London and Liverpool. German attacks repulsed between Ypres and the sea. Intense bombardment of Ypres. Germans occupied Libau. Allies advanced in the Gallipoli Peninsula.

MAY 9TH.—German attacks repulsed east of Ypres. The German advance in the Russian Baltic Provinces stopped. Austro-Germans in W. Galicia crossed the R. Wisloka.

MAY 10TH.—Hard fighting North of Arras. Russians in W. Galicia driven back to the R. San. Russian advance in Bukovina, 5000 Austrians captured.

MAY 11TH.—German attacks on Ypres again repulsed.

MAY 12TH.—Anti-German riots in London and Johannesburg. Belgians reestablished a bridge-head on the right bank of R. Yser, north of Dixmude. Austro-Germans in W. Gali-

cia within 25 miles of Przemyśl. Turkish attacks in the Gallipoli Peninsula repulsed. H. M. S. Goliath and Australian submarine A. E. 2 sunk in the Dardanelles. S. African forces captured Winhoek, the capital of German S. W. Africa.

MAY 13TH.—French captured Notre Dame de Lorette, north of Arras taking 4,000 prisoners.

MAY 14TH and 15TH.—French success north of Arras continued.

MAY 16TH.—British success at Festubert. Russian success at Shavli in the Baltic Provinces. Austro-German troops forced the passage of the R. San between Jaroslav and Przemyśl. Allies advanced in the Gallipoli Peninsula.

MAY 17TH.—A Zeppelin dropped 40 bombs on Ramsgate, 3 persons injured. The Zeppelin attacked and damaged by British aeroplanes. British success at Festubert continued. Further British advance in the Gallipoli Peninsula.

MAY 18TH.—A National Government of all parties decided on in England. French and Belgians drive the last Germans from the left bank of R. Yser.

MAY 19TH.—Russians advance on both banks of lower San R. Considerable advance by the Allies in the Gallipoli Peninsula.

MAY 23RD.—Hard fighting North of Arras. Russians attack on the left bank of R. Dneister.

MAY 24TH.—Italy declared War on Austria. Germany declared War on Italy. Italians invaded the Trieste province. Naval action between Austrians and Italians, one Italian destroyer sunk, 5 Austrian light craft damaged.

MAY 25TH.—Italians invaded the Trentino province.

MAY 26TH.—H. M. S. Triumph sunk by a submarine in the Dardanelles.

MAY 27TH.—Zeppelin raid on Southend, little damage done. Zeppelin destroyed by British Aeroplanes. British submarine E 11 entered the Sea of Marmora and sunk 4 Turkish ships. Russians recaptured Sienawa in Galicia. H. M. S. Majestic sunk in the Dardanelles.

MAY 28TH.—Auxiliary ship "Princess Irene" blown up at Sheerness.

Diary of the War.

MAY 29TH.—Russians hold the right bank of R. San from the mouth to the R. Lubaczewka.

MAY 30TH.—Germans attacked the western side of Przemyśl. British captured Spinkhaven on L. Nyassa.

MAY 31ST.—Russians advanced across R. Lubaczewka. Italian airship dropped bombs on Pola. British advanced up R. Tigris and defeated the Turks north of Kurna.

JUNE 1ST.—Zeppelin raid on south-east coast of England. Anti-German riots in London. Fighting work of Arras continues the French having captured Souchez and Carency. German attacks repulsed on R. Bzura, west of Warsaw.

JUNE 2ND.—British stormed Chateau Hooge, north of Ypres. Russians evacuated Przemyśl.

JUNE 3RD.—Italians crossed R. Isonzo in Trieste province. Russians sunk a German destroyer in the Baltic. British submarine sunk a Turkish transport in the Sea of Marmora.

JUNE 4TH.—German counter attacks north of Arras repulsed. Raid by French aeroplanes on German Crown Prince's headquarters. German airships dropped bombs on the east and south east coasts of England. Allies advanced 500 yards in the Gallipoli Peninsula. British in Mesopotamia took Amara on R. Tigris and captured large numbers of prisoners and some guns.

JUNE 5TH.—Italian fleet bombarded the Dalmatian coast. Germans attacked Moscizka, east of Przemyśl.

JUNE 6TH.—French offensive north of Arras continues. Naval action in the Baltic, Russian submarines damaged 3 German men of war, Zeppelin raid on the east coast of England,

JUNE 7TH.—Zeppelin returning from the raid in England caught and destroyed by a British aeroplane between Ghent and Brussels. Another Zeppelin burnt in its shed north of Brussels.

JUNE 8TH.—Italians captured Monfalcone at the mouth of R. Isonzo.

JUNE 9TH.—2 British torpedo boats sunk by a submarine in the North Sea. Sinking of a German submarine and capture of the crew announced in Parliament.

JUNE 11TH.—2 Russian destroyers damaged the Breslau and sank some Turkish torpedo boats near the Bosphorus. A British and French force captured Garua in the Cameroons.

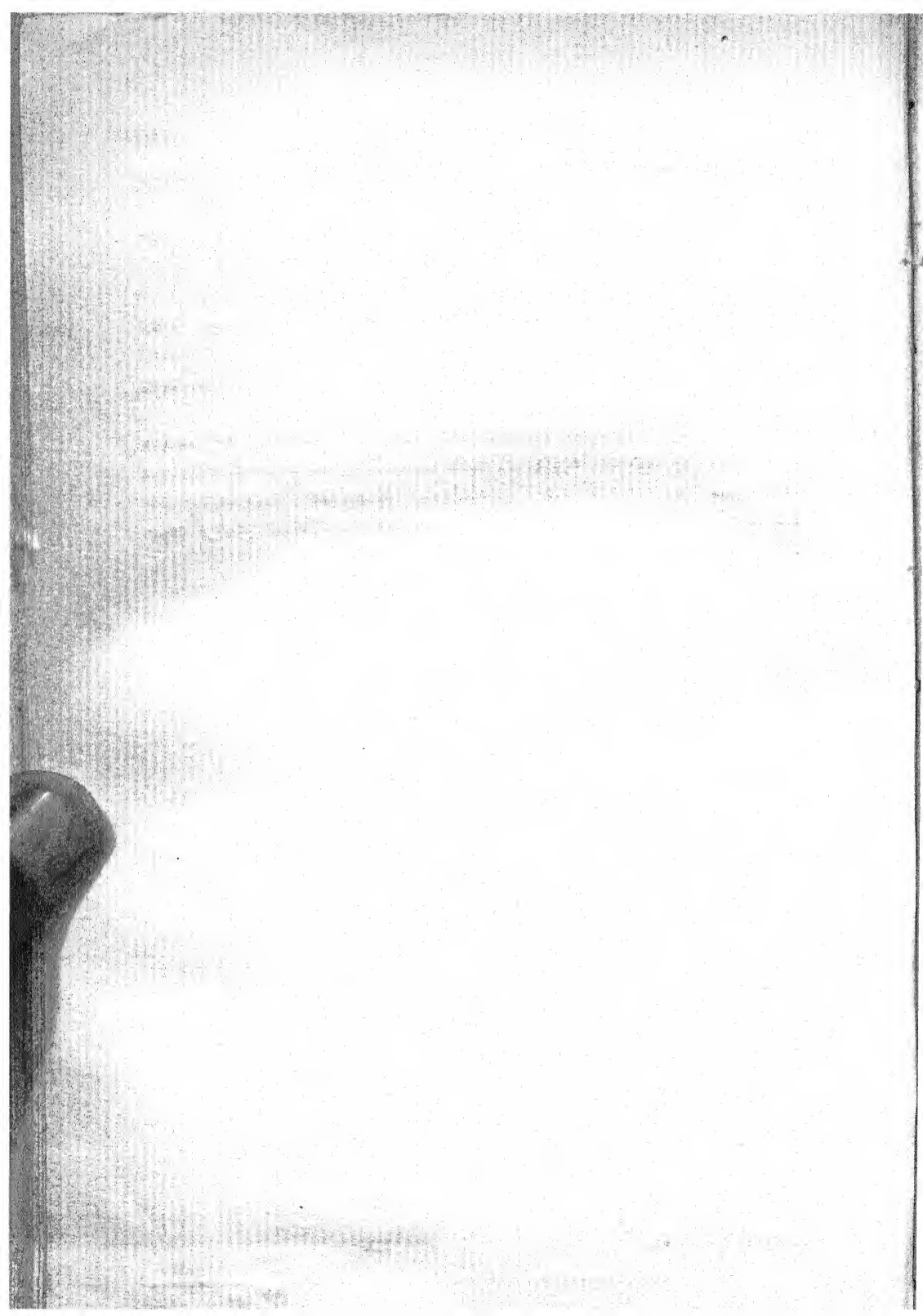
JUNE 12TH.—American Note to Germany published.

JUNE 13TH.—Belgians forced the crossing of the R. Yser at Dixmude. German forces on the Russian front increased to 141. Divisions. Germans advance between Sienawa and Moscizka in Galicia.

JUNE 15TH.—Lord Hardinge's term as Viceroy of India extended to March 1916. French aeroplane raid on Karlsruhe. Germans advanced at Jaroslav, Russians advance on R. Dneister. Russians evacuated Bukovina. War party successful in Greek elections.

*Comparative Table of British and German losses
officially announced up to 15th June 1915.*

—			British.	German.	Remarks.
BATTLESHIPS—					
Dreadnoughts	...	...	...	...
Pre-Dreadnoughts	...	...	7	...	
CRUISERS—					
Battle	...	...	...	...	"Goeben" excluded.
Armoured	...	...	6	5	
Light	...	...	4	12	"Breslau" excluded.
Auxiliary	...	...	4	19	
GUNBOATS	...	...	2	6	
TORPEDO BOAT					
DESTROYERS	...	...	3	18	
TORPEDO BOATS	...	...	2	2	
SUBMARINES	...	..	7	12	



United Service Institution of India.

OCTOBER 1915,

SECRETARY'S NOTES.

I.—New Members.

The following members joined the Institution between the 16th June and the 1st September inclusive :—

LIFE MEMBERS.

J. Izat, Esq.
Lieut. A. H. Crowther.
Lieut.-Colonel T. C. Watson.

Lt.-Colonel J. Bruce-Kingsmill.
J. R. G. Hastings, Esq.

ORDINARY MEMBERS.

Lieut.-Colonel C. M. Dallas.
Sir E. D. MacLagan
Captain C. B. W. Hay.
The Hon. Mr. C.A. Barron.
Major C. H. de St. P. Bunbury.
2nd Lieut. C. Crimmin.
2nd Lieut. J. A. Ewart.
Lieut. C. N. Harding.
2nd Lieut. T.P.M. O'Callaghan.
Sir J. H. Marshall.
Captain A. H. R. Saunders.
2nd Lieut. E. M. Walker.
S. E. Wallace, Esq.
Ven'ble Archdeacon E.J. Warlow.
Lieut. E. J. P. T. Walker.
Colonel T.E. Scott, C.I.E., D.S.O.
Major A. H. S. Hart-Synnot.
2nd Lieut A. C. de Clermont.
A. R. Astbury, Esq.
A. Murphy, Esq.
A. B. Kettlewell, Esq.
2nd Lieut R. Wilkinson.
A. V. Askwith, Esq.
Lieut. J. E. B. Hotson.
2nd Lieut. A. F. Freemantle.

2nd Lieut. M. Thorp.
Capt. R. C. Fergusson-Pollock.
G. H. R. Halland, Esq.
2nd Lieut. J. A. de Ross.
Reverend H. England.
F. E. Gwyther, Esq.
The Hon. Mr. J.P. Thompson.
Colonel E. B. Lang.
H. N. Hutchinson, Esq.
Surgeon-Genl. J.G. Macneece.
H. T. Knowlton, Esq.
2nd Lieut. W. F. Savisson.
T. R. J. Ward, Esq.
M. R. Coburn, Esq.
D. Petrie, Esq.
Captain E. B. Bulkley.
M. M. S. Gubbay, Esq.
Captain R. F. Finlay.
Major D. G. Cowie.
Major H. H. Broome.
Lt. Leslie-Jones, Esq.
Captain A. B. Haig.
Sir Robert R. Gales.
2nd Lieut. E. B. Nelson.

(ii)

Secretary's Notes.

II.—Tactical Problems.

In order to assist officers, working for Tactical examinations, the Institution has schemes for issue to members only, at Rs. 5 each, which includes criticism and a solution by a qualified officer; 26 schemes are now available.

III.—Military History Papers.

(i) In order to assist officers in the study of military history, the Institution has sets of questions on the following campaigns:—

- (a) One paper on the Waterloo Campaign.
- (b) Three papers on Callwell's Small Wars.
- (c) Two papers on the strategy of the Russo-Japanese War.
- (d) Five papers on the battles of the Russo-Japanese War.
- (e) Two papers on the Afghan War, 1879-80.
- (f) Two papers on the Crimean War.
- (g) One paper on the Indian Mutiny.
- (h) One paper on the Shenandoah Valley Campaign, 1861-62.
- (i) One paper on the Bohemian Campaign, 1866, to the Battle of Koniggratz, inclusive.
- (j) One paper on the Jena Campaign, 1806.
- (k) One paper on the Franco-German War, 1870.

The charge for these papers is Rs. 5 each, which includes criticism by qualified officers.

(ii) Pamphlets dealing with the Shenandoah Valley Campaign from April 1861 to June 1862, the Bohemian Campaign, 1866 to the battle of Koniggratz inclusive, and the Battle of Liaoyang, can be obtained from the Secretary, Price Re. 1 each, or Re. 1-2-0 per V. P. P.

IV.—Premia for Articles in the Journal.

Articles accepted for publication in the Journal are paid for, and a sum of approximately Rs 400 is awarded for articles and reviews published in each Quarterly Journal.

V.—Library Catalogue.

The library catalogue revised up to 1st November 1912 is available. Price of catalogue Re. 1 or Re 1-4-0, per V.P.P. A new

catalogue is being compiled which will be ready in October. A List of Books received each quarter is published with the Journal.

VI.—Northern and Southern Army Prize Essays.

The Council will award the sum of Rs. 150 on the usual conditions, for the best essays sent in from members of the Northern and Southern Armies by the 31st December 1915, on the following subjects selected by Army Commanders.

Northern Army.—"The provision of a reserve of officers for the Indian Army for future campaigns.

Southern Army.—(1) Under modern conditions, when a state of war exists, how to deal with a hostile alien population in our midst, or

(2) Discuss the question of Reserves for the Indian Army in time of war. Do the present regulations on the subject in your opinion require any modifications?

Essays are to be *strictly anonymous*. Each must have a motto, and enclosed with the essay there should be sent a *sealed* envelope with the motto written on the outside and the name of the competitor inside, and addressed to the Secretary, U. S. I. of India, Simla.

VII.—Gold Medal Prize Essay, 1914-15.

The Council have chosen as the subject for the Gold Medal Essay for 1915-16 the following:

"The improvement in strength and efficiency of the Volunteer Force in India."

The following are the conditions of the competition:—

(1) The competition is open to all gazetted officers of the Civil administration, the Navy, Army and Volunteers, who are members of the U. S. I. of India.

(2) Essays must be printed or type-written and submitted in triplicate.

(3) When a reference is made to any work, the title of such work is to be quoted.

(4) Essays are to be *strictly anonymous*. Each must have a motto, and enclosed with the essay there should be sent a *sealed* envelope with the motto, written on the outside and the name of the competitor inside.

(iv)

Secretary's Notes.

(5) Essays will not be accepted unless received by Secretary on or before the 30th June 1916.

(6) Essays will be submitted for adjudication to referees chosen by the Council. No medal will be awarded if the Council consider that the best essay is not of a sufficient standard of excellence.

(7) The name of the successful candidate will be announced at a Council Meeting to be held in August or September 1916.

(8) All essays submitted are to become the property of the United Service Institution of India, *absolutely*, and authors will not be at liberty to make any use whatsoever of their essays without the sanction of the Council.

(9) Essays should not exceed about 15 pages of the Journal, when printed exclusive of any appendices, tables or maps.

VIII.—Contributions to the Journal.

With reference to Army Regulations, India, Volume II, paragraph 483, and King's Regulations, paragraph 453, as amended by Army Order 340 of 1913, intending contributors to the Journal of the United Service Institution of India are informed that action to obtain the sanction of His Excellency the Commander-in-Chief to the publication of any article in the Journal of the United Service Institution of India will be taken by the Committee. Contributors are, therefore, responsible that the sanction of their immediate superior has been obtained, and this should be noted on all articles sent for publication. Articles need not be submitted in duplication.

Contributors are requested to have their articles either typed or printed.

IX.—The Institution is prepared to supply members and units with manuscript type-written or printed pages from old Army Lists since 1800. Endeavours will also be made to procure extracts from the "Registers" prior to that date. The following will be the rates charged:—

Manuscript of each paper	...	...	Re. 1 0 0
Type-written or printed copy, per page	...	...	Rs. 2 0 0
Binding if required	...	...	Extra.

Secretary's Notes.

(v)

If facsimile of *type* is required the price of printed pages will range from Rs. 5-8 to Rs. 2-12 per page, according to the amount of matter on each page. The higher rate being charged for pages similar to those of the Indian Army in the current Army list.

X.—War Map.

War Maps are on view in the Reading Room of the Institution, with the positions of the troops, so far as is known, marked with flags, in each theatre of war.

XII.—Amendment to Rules.

Rule VI—9 is reconstructed as follows:—

"If a member fails to pay his subscription for any financial year (ending 31st December) before the 1st June in the following year, a registered notice shall be sent to him by the Secretary inviting his attention to the fact. If the subscription is not paid by 1st January following, his name shall be posted in the Reading Room for six months and then struck off the roll of members."

XIII.—Annual Subscriptions.

The Committee wish to invite the attention of members to the large amount of unnecessary correspondence and expense annually caused to the Institution by the difficulty in getting in the annual subscriptions. If members wish to resign their membership they have only to notify the fact in writing to the Secretary. If this is not done, it is presumed that they wish to remain members and the Journal is regularly posted to their last known address.

Much inconvenience and unnecessary correspondence is also caused by the failure of members to notify their changes of address or to make any arrangements for the Journal to be sent after them, when they change their address.

The remedy for both these matters lies with members themselves, and it is for their consideration whether they agree to continue supplying the Journal to those who have not paid their subscriptions, and to have the time of their staff largely taken up in issuing reminders and trying to trace addresses.

XIV.—Books Presented to the Institution.

The acknowledgments of the Council for the following presentations are hereby recorded:—

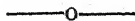
“General Orders and Regulations in force in the Hon’ble East India Company, Published by subscription in 1812.

“A treatise on Naval gunnery, by Major-General Sir Howard Douglas, dated 1829.

Presented by the Government of Bihar and Orissa.

DIARY OF THE WAR.

Up to the 15th September 1915.



For further details regarding events from 28th June 1914 to 31st March 1915 see the April and July Numbers of the Journal of the U. S. I. of India.

28TH JUNE 1914. The Archduke Franz Ferdinand assassinated.

28TH JULY. Austria declared war on Serbia.

1ST AUGUST. Germany declared war on Russia.

2ND AUGUST. German ultimatum to Belgium.

3RD AUGUST.—War declared between France and Germany.

4TH AUGUST.—Neutrality of Belgium violated. Great Britain declared war on Germany.

5TH AUGUST.—Germany declared war on Belgium.

6TH AUGUST.—Austria declared war on Russia.

8TH AUGUST.—French advance into Alsace. Serbia declared war on Germany.

10TH AUGUST.—France declared war on Austria. Austrian invasion of S. Poland.

11TH AUGUST.—French retired from Alsace. Russian invasion of E. Galicia.

12TH AUGUST.—Great Britain declared war on Austria. Austrians invaded Serbia.

15TH AUGUST.—French invade German Lorraine. Fall of Liege.

16TH AUGUST.—British Expeditionary Force completed its landing in France. Russian first invasion of E. Prussia.

19TH AUGUST.—Austrians defeated by Serbs in Serbia. 2nd French invasion of Alsace.

20TH AUGUST.—Germans occupied Brussels.

21ST AUGUST.—Battle of Charleroi commences.

22ND AUGUST.—French driven from Charleroi.

23RD AUGUST.—Japan declared war on Germany. French driven out of Alsace and Lorraine. Fall of Namur.

24TH AUGUST.—Commencement of the retreat from Mons. Austrians driven out of Serbia.

Dairy of the War.

25TH AUGUST.—Russian defeat at Tannenburg.

28TH AUGUST.—Cruiser action off Heligoland.

3RD SEPTEMBER.—Russians occupied Lemburg.

4TH SEPTEMBER.—Russians commenced the offensive in S. Poland.

5TH SEPTEMBER.—End of retreat from Mons.

6TH SEPTEMBER.—Servian invasion of Austria.

7TH SEPTEMBER.—Fall of Maubenge.

8TH SEPTEMBER.—German retirement to R. Aisne commenced.

11TH SEPTEMBER.—Australians occupied Bismarck Archipelago.

12TH SEPTEMBER.—Beginning of battle of the R. Aisne.

Austrians driven back to the R. San. 2nd Austrian invasion of Servia. Servian invasion of Austria abandoned.

SEPTEMBER 17TH.—E. Prussia again clear of the Russians German advance towards the R. Niemen.

SEPTEMBER 20TH.—Extension of opposing lines from the R. Aisne to the Channel commences.

SEPTEMBER 23RD.—Commencement of siege of Przemysl.

SEPTEMBER 25TH.—The Australian forces announce the occupation of Kaiser Wilhelm's Land.

SEPTEMBER 26TH.—Indian Expeditionary Force lands in France. Repulse of 1st German attack on R. Niemen, and retreat of Germans to E. Prussia.

SEPTEMBER 28TH.—Battle on R. Aisne develops into a stalemate. Siege of Antwerp commences.

OCTOBER 3RD.—1st German advance on Warsaw.

OCTOBER 9TH.—Fall of Antwerp. Commencement of rebellion in S. Africa.

OCTOBER 11TH.—2nd Russian invasion of E. Prussia.

OCTOBER 12TH.—Remains of the Belgian field Army reached R. Yser.

OCTOBER 13TH.—Germans occupy Lille.

OCTOBER 14TH.—Allies occupy Ypres.

OCTOBER 16TH.—Commencement of the battle of Ypres.

OCTOBER 23RD.—Russians completely repulse 1st German advance on Warsaw.

OCTOBER 28TH.—Russians advanced in Poland. Rebellion in South Africa.

OCTOBER 29TH.—Violation of Egyptian frontier by Turkish

Arabs. Turks bombarded Odessa.

OCTOBER 31ST.—Bombardment of Tsingtau begins.

NOVEMBER 1ST.—H. M. S. "Monmouth" and H. M. S. "Good Hope" sunk in an action on the Chilian coast. Germans driven out of Poland.

NOVEMBER 3RD.—Russians invade Turkish Armenia, 1st Bombardment of Dardanelles.

NOVEMBER 4TH.—British reverse in German East Africa.

NOVEMBER 5TH.—Great Britain declares war on Turkey. Cyprus annexed.

NOVEMBER 6TH.—British land in Mesopotamia.

NOVEMBER 7TH.—Fall of Tsingtau.

NOVEMBER 9TH.—H. M. A. S. "Sydney" sank the German cruiser "Emden."

NOVEMBER 11TH.—End of the battle of Ypres.

NOVEMBER 14TH.—Death of Lord Roberts.

NOVEMBER 17TH.—Defeat of Turks by British Indian Force at Sain in Mesopotamia.

NOVEMBER 27ST.—2nd German attack on Warsaw.

NOVEMBER 22ND.—British occupied Basra.

NOVEMBER 25TH.—End of rebellion in S. Africa.

NOVEMBER 28TH.—Russian advance on Cracow.

NOVEMBER. 29TH.—King George crossed to France.

NOVEMBER 30TH.—Turkish invasion of Caucasia commences. Austrians capture Belgrade.

DECEMBER 2ND.—Servians took the offensive along their whole front.

DECEMBER 3RD.—Second French invasion of Alsace.

DECEMBER 5TH.—King George returned to London. Battle commenced S. E. of Cracow.

DECEMBER 8TH.—A British squadron off the Falkland Islands sunk the German cruisers "Scharnhorst," "Gneisenau," "Leipzig" and "Nurnberg";

DECEMBER 13TH.—British submarine B-II sunk the Turkish ironclad "Messudieh".

DECEMBER 14TH.—Austrians again driven from Servia.

DECEMBER 17TH.—Egypt is placed under the protection of Great Britain.

DECEMBER 18TH.—Prince Hussein Kamel Pasha is appointed

Sultan of Egypt.

DECEMBER 23RD.—2nd German attack on Warsaw stopped.

DECEMBER 25TH.—British air raid on Cuxhaven. Turkish invasion of Caucasia checked.

DECEMBER 26TH.—Austrian defeat in Galicia.

JANUARY 1ST.—H. M. S. "Formidable" torpedoed in the English Channel.

JANUARY 3RD.—Russians completely defeat Turkish forces concentrated at Ardahan in the Caucasus.

JANUARY 4TH.—Russians defeat enemy in North Poland.

JANUARY 6TH.—Russians defeat the Turks at Sarikamysh in Caucasia. French advance towards Mulhausen announced.

JANUARY 11TH.—French driven back at Soissons.

JANUARY 13TH.—Tabriz taken by the Turks. Turks near Erzerum check Russian advance.

JANUARY 14TH.—Swakopmund, occupied by Union Forces.

JANUARY 16TH.—Turks driven out of Caucasia

JANUARY 19TH.—German airships attack Yarmouth, King's Lynn, Snettisham, and other Norfolk towns and villages.

JANUARY 24TH.—The "Blucher" sunk, and two German battle-cruisers seriously damaged in the North Sea,

JANUARY 25TH.—The British repulse an attack on Givenchy, near La Bassee.

JANUARY 26TH.—Turkish advance on Egypt begun.

JANUARY 30TH.—2nd German attack towards Warsaw from the West.

JANUARY 31ST.—Heavy fighting in the Argonne, near Fontaine Madame. Russians advancing on Tabriz.

FEBRUARY 1ST.—Russians force the Dukla Pass in the Carpathians and capture the G. O. C. and staff of the 30th Turkish division near Olty in Trauscaucasia.

FEBRUARY 2ND.—Turkish attack on Suez Canal at Tussum repulsed.

FEBRUARY 3RD.—Russian advance on right flank of lower Vistula and in E. Prussia. Turkish attack on El Kantara on the Suez Canal repulsed.

FEBRUARY 4TH.—Final Turkish attack on Suez Canal repulsed. Repulse of 2nd German attack on Warsaw.

FEBRUARY 5TH.—Germans proclaim the waters round Great

Britain and Ireland to be a "Military Area ;"

FEBRUARY 6TH.—Russians take the offensive on left bank of lower Vistula.

FEBRUARY 7TH.—Austro-German offensive commenced in E. Prussia and Bukovina.

FEBRUARY 10TH.—Germans advance in E. Prussia.

FEBRUARY 11TH.—3rd German attempt on Warsaw from the North.

FEBRUARY 19TH.—3rd German advance on Warsaw checked and Russians assume the offensive. British and French fleets bombard the entrance to the Dardanelles.

FEBRUARY 20TH.—Austrians occupy Stanislavof.

FEBRUARY 22ND.—Russians recapture Stanislavof.

FEBRUARY 24TH.—Russian attacks on Praznitz.

FEBRUARY 26TH.—Russians recapture Praznitz.

FEBRUARY 28TH.—Blockade of German E. Africa commences.

MARCH 1ST.—Absolute blockade of Germany declared by England.

MARCH 2ND.—Russians defeat the Austrians on the R. Lomn-
itza taking 6,000 prisoners, Russians capture the Turkish port of
Khopa.

MARCH 3RD.—Actions near Ahwaz and Nakhailah in Mesopota-
mia.

MARCH 10TH.—British capture Neuve Chapelle,

MARCH 18TH.—Three vessels of the Allied Fleets in the
Dardanelles sunk by mines,

MARCH 22ND.—Fall of Przemyśl.

MARCH 27TH.—Capture by the French of summit of Hartman-
nsweilerkopf, in the Vosges.

APRIL 1ST.—From the outbreak of the war to date the num-
bers of Officers and men of the Royal Navy, Marines, Royal
Naval Reserve, and Royal Naval Volunteer Reserve killed, wound-
ed, and missing are:—Officers: killed 332; wounded, 61; miss-
ing, 7; interned, 41; prisoners, 11; total 452, Men killed, 4,981
(including 57 mercantile ratings lost in H. M. S. Bayano);
wounded, 640 (including 3 interned and 50 "prisoners"); missing,
72; interned, 1,524 (exclusive of wounded); prisoners 924 (exclu-
sive of 50 wounded); total 8,141. Successful British air raid on
Zeebrugge and Hoboken. Three Tyne trawlers sunk by German
submarine U 20.

APRIL 2ND.—Communications, through Washington, between the British and German Governments respecting the treatment of captured submarine crews are issued by the Press Bureau. The German Government threatened reprisals if the British Admiralty segregates the officers and men recently rescued from two German submarines. Sir Edward Grey in his reply points out that as the crews of the German submarines were engaged in sinking innocent British and neutral merchant ships and wantonly killing non-combatants, they cannot be regarded as honourable opponents. A German aeroplane brought down near Soissons, the third in 24 hours. A Bulgarian force, described as consisting of "irregulars" and "Komitadjis," attacks a Serbian blockhouse and is repulsed.

APRIL 3RD.—In the Black Sea near the Crimean coast, the Russian Fleet exchanges shots at long range with the cruisers "Goeben" and "Breslau."

APRIL 4TH.—Continued Russian progress and large captures in the Carpathians. Again little activity on the Western front.

APRIL 7TH.—From Petrograd news comes of a notable Russian success in the Carpathians. In the centre of this zone of fighting the Russians were able to advance to the southern side of the Rostoki Pass. German line between the Meuse and the Moselle pushed back by the French.

APRIL 8TH.—The German armed merchantman Prince Eitel Friedrich is interned in the U. S. A. The French gain ground in the St. Mihiel region. Allied attack on Enos is reported.

APRIL 9TH.—The Russian General Staff defines the position of the forces in the Carpathians. They hold the summits on a front of 70 miles from south of the Dukla Pass, to slightly north of the Uzsok Pass.

APRIL 11TH.—The Harrison liner "Wayfarer" is torpedoed off Scilly, but is safely towed into Queenstown and beached. German reinforcements in Carpathians. French aeroplane attack on Bruges.

APRIL 12TH.—Between March 19th and April 12th on the whole Carpathian front the enemy, having suffered enormous losses, left in Russian hands, in prisoners only, at least 70,000 men, including about 900 officers. Further, our Allies have captured more than 30 guns and 200 machine-guns. A lull on the Western front.

German threat to revenge on captive British officers the special treatment of German prisoners from submarines is carried out, 39 British officers being placed under military arrest.

APRIL 13TH.—According to the enemy's report the Russian offensive in the Carpathians has been arrested, but the fighting is still terrific.

APRIL 14TH.—A Zeppelin visits the North-East Coast in the Tyne district, doing little damage. French ascendancy again asserts itself in the Argonne. A Dutch vessel, the "Katwyk," torpedoed, without warning, by a German submarine off the Dutch coast. She had a cargo of grain for the Dutch Government. Heavy fighting at Shaiba near Basra. British victories, and rout of 15,000 Turks, who abandon equipment, stores, and 700,000 rounds of rifle and 450 boxes of gun ammunition.

APRIL 15TH.—In the House of Commons Mr. Tennant said that the latest total of war casualties reported up to April 11th was 139,347. (The total casualties were given as 57,000 on October 31st and 104,000 on February 4th.) Field-Marshal Sir John French's dispatch (covering the period February and March 20) published. British losses in the battle of Neuve Chapelle were 190 officers and 2,337 other ranks killed; 359 officers and 8,174 other ranks wounded; and 23 officers and 1,728 other ranks missing. The enemy left several thousand dead on the battlefield, and over 12,000 wounded were removed by train. Thirty officers and 1,657 other ranks of the enemy were captured. In Alsace to the north of the Lauch the French progress 1,630 yards. French airmen drop bombs near Metz.

APRIL 16TH.—A German aeroplane drops bombs in the Faversham-Sittingbourne district of East Kent during the afternoon. Earlier in the day an enemy's dirigible dropped bombs on Essex and Suffolk, slight material damage done. Three aeroplanes attacked Turkish camps in Sinai. The actions in the Carpathians concentrate towards Rostoki.

APRIL 17TH.—British submarine E. 15, while attempting a reconnaissance of the Kephez minefield in the Dardanelles, runs ashore near Kephez Point. The crew are rescued and made prisoners. The transport "Manitou," carrying British troops, is attacked by a Turkish torpedo-boat in the Aegean. The torpedo-boat, chased by a British cruiser and destroyers, is run ashore. S. E.

of Ypres the British explode a mine under Hill 60 on the Ypres-Comines Railway, and take the hill.

APRIL 18TH.—In the Dardanelles the submarine E 15, aground off Kephez Point, is in danger of falling into Turkish hands. To avert this two picket boats, manned by volunteer crews, torpedo the submarine and render it useless. The boats were subjected to a heavy fire at short range. Lieut.-Commander Eric Robinson is promoted Commander for his services on this occasion. Lieutenant Garros, the French airman, is captured in Flanders. Two more German aeroplanes are brought down near Ypres, making five in all since the 15th instant.

APRIL 19TH.—The French make appreciable progress in Alsace, advancing along both banks of the Fecht. Fierce fighting near Ypres, the enemy trying at all costs to retake Hill 60.

APRIL 20TH.—The German make heavy artillery attacks in the hope of retaking Hill 60. Keetmanshoop, a central position in German South West Africa, occupied by Union forces.

APRIL 21ST.—Extremely violent efforts by the Germans to retake Hill 60. The French line is slightly advanced in the St. Mihiel area.

APRIL 22ND.—The enemy develops an attack on the French troops to the north of the Ypres salient. This attack is preceded by a heavy bombardment, the enemy at the same time making use of a large number of appliances for the production of asphyxiating gases. The French have to retire from the gas zone. Overwhelmed by the fumes they fall back to the R. Yser. French progress south of St. Mihiel.

APRIL 24TH.—The Ypres struggle continues. The Canadian Division recaptures four 4.7 guns they had lost. German attacks at Les Eparges repulsed.

APRIL 25TH.—The Allied forces effect a landing on both shores of the Dardanelles. At Ypres the Germans, still using asphyxiating gases, deliver attacks which are repulsed and the Allies regain ground.

APRIL 26TH.—British take the offensive and make progress, all attacks north-east of Ypres being repulsed. British airmen destroy Courtrai railway junction, and successfully attack the Tourcoing—Roubaix and other railway lines. The summit of Hartmannsweilerkof is recaptured by the Germans, and retaken

from them by the French.

APRIL 27TH.—Allied forces make good their footing on the Gallipoli Peninsula and the Asiatic side of the Dardanelles. On the Flanders front the Germans are forced back and acting on the defensive. The French armoured cruiser "Leon Gambetta" torpedoed in the Otranto Straits, 600 officers and men drowned.

APRIL 28TH.—German offensive at Ypres "definitely stopped."

APRIL 29TH.—Battle on the Plain of Troy; advance of the French. Further progress by the Allies on the Yser.

APRIL 30TH.—Air raid on Ipswich and Bury St Edmunds; no loss of life.

MAY 1ST.—H. M. S. "Recruit," a destroyer, sunk by a German submarine and 2 German torpedo boats sunk by British destroyers off the Belgian coast. Dunkirk shelled by long range German howitzers. A German attack on Hill 60 repulsed. Great Austro-German offensive movement commenced in W. Galicia. Russian fleets bombard the entrance to the Bosphorus. Turkish attacks repulsed in the Gallipoli Peninsula.

MAY 2ND.—Heavy artillery firing near Ypres. In W. Galicia the Russians driven across the R. Dunajec. Turkish attacks repulsed and Allies advance in the Gallipoli Peninsula. S. African forces advanced to within 68 miles of Windhoek in German S. W. Africa.

MAY 3RD.—Russians defeated the Turks in W. Persia. 3,500 dead Turks picked up on the battle field.

MAY 4TH.—German attack repulsed North of Ypres.

MAY 7TH.—Cunard liner "Lusitania" sunk by a German submarine off the Irish coast, 1,457 casualties including 139 Americans. H. M. S. "Maori," destroyer, sunk by a mine off the Belgian coast.

MAY 8TH.—Anti-German riots in London and Liverpool. German attacks repulsed between Ypres and the sea. Intense bombardment of Ypres. Germans occupied Libau. Allies advanced in the Gallipoli Peninsula.

MAY 9TH.—German attacks repulsed east of Ypres. The German advance in the Russian Baltic Provinces stopped. Austro-Germans in W. Galicia crossed the R. Wisloka.

MAY 10TH.—Hard fighting North of Arras. Russians in W.

Galicia driven back to the R. San. Russian advance in Bukovina, 5000 Austrians captured.

MAY 11TH.—German attacks on Ypres again repulsed.

MAY 12TH.—Anti-German riots in London and Johannesburg. Belgians re-established a bridge head on the right bank of R. Yser, north of Dixmude. Austro-Germans in W. Galicia within 25 miles of Przemyśl. Turkish attacks in the Gallipoli Peninsula repulsed. H. M. S. Goliath and Australian submarine A. E. 2 sunk in the Dardanelles. S. African forces captured Windhoek, the capital of German S. W. Africa.

MAY 13TH.—French captured Notre Dame de Lorette, north of Arras taking 4,000 prisoners.

MAY 14TH and 15TH.—French success north of Arras continued.

MAY 16TH.—British success at Festubert. Russian success at Shavli in the Baltic Provinces. Austro-German troops forced the passage of the R. San between Jaroslav and Przemyśl. Allies advanced in the Gallipoli Peninsula.

MAY 17TH.—A Zeppelin dropped 40 bombs on Ramsgate, 3 persons injured. The Zeppelin attacked and damaged by British aeroplanes. British success at Festubert continued. Further British advance in the Gallipoli Peninsula.

MAY 18TH.—A National Government of all parties decided on in England. French and Belgians drive the last German from the left bank of R. Yser.

MAY 19TH.—Russians advance on both banks of lower San R. Considerable advance by the Allies in the Gallipoli Peninsula.

MAY 23RD.—Hard fighting North of Arras. Russian attack on the left bank of R. Dneister. Italy declared war on Austria.

MAY 24TH. Italians invaded the Trieste province. Naval action between Austrians and Italians, one Italian destroyer sunk, 5 Austrian light craft damaged.

MAY 25TH.—Italians invaded the Trentino province. Coalition cabinet formed in Great Britain.

MAY 26TH.—H. M. S. "Triumph" sunk by a submarine in the Dardanelles.

MAY 27TH.—Zeppelin raid on Southend, little damage done. Zeppelin destroyed by British aeroplanes. British submarine E II entered the Sea of Marmora and sunk 4 Turkish ships. Russian recaptured Sienawa in Galicia. H. M. S. "Majestic" sunk in the

Dairy of the War.

(xvii)

Dardanelles.

MAY 28TH.—Auxiliary ship "Princess Irene" blown up at Sheerness.

MAY 29TH.—Russians hold the right bank of R. San from the mouth to the R. Lubaczewka.

MAY 30TH.—Germans attacked the western side of Przemyśl. British captured Spinkhaven on L. Nyassa.

MAY 31ST.—Russians advanced across R. Lubaczewka. Italian airship dropped bombs on Pola. British advanced up R. Tigris and defeated the Turks north of Qurnah. Zeppelin raid on south-east coast of England.

JUNE 1ST.—Anti-German riots in London. Fighting north of Arras continues the French having captured Souchez and Carency. German attacks repulsed on R. Bzura, west of Warsaw.

JUNE 2ND.—British stormed Chateau Hooze, north of Ypres. Russians evacuated Przemyśl.

JUNE 3RD.—Italians crossed R. Isonzo in Trieste Province. Russians sank a German destroyer in the Baltic. British submarine sank a Turkish transport in the Sea of Marmora.

JUNE 4TH.—German counter attacks north of Arras repulsed. Raid by French aeroplanes on German Crown Prince's headquarters. German airships dropped bombs on the east and south east coasts of England. Allies advanced 500 yards in the Gallipoli Peninsula. British in Mesopotamia took Amara on R. Tigris and captured large numbers of prisoners and some guns.

JUNE 5TH.—Italian fleet bombarded the Dalmatian coast. Germans attacked Moscizka, east of Przemyśl.

JUNE 6TH.—French offensive north of Arras continues. Naval action in the Baltic, Russian submarines damaged 3 German men of war. Zeppelin raid on the east coast of England,

JUNE 7TH.—Zeppelin returning from the raid in England caught and destroyed by a British aeroplane between Ghent and Brussels. Another Zeppelin burnt in its shed north of Brussels.

JUNE 8TH.—Italians captured Monfalcone at the mouth of R. Isonzo.

JUNE 9TH.—2 British torpedo boats sunk by a submarine in the North Sea. Sinking of a German submarine and capture of the crew announced in Parliament.

JUNE 11TH.—2 Russian destroyers damaged the "Breslau" and

sank some Turkish torpedo boats near the Bosphorus. A British and French force captured Garua in the Cameroons.

JUNE 12TH.—American Note to Germany published.

JUNE 13TH.—Belgians forced the crossing of the R. Yser at Dixmude. German forces on the Russian front increased to 141. Divisions. Germans advance between Sienawa and Moscizka in Galicia.

JUNE 15TH.—Lord Hardinge's term as Viceroy of India extended to March 1916. French aeroplane raid on Karlsruhe. Germans advanced at Jaroslav, Russians advance on R. Dniester. Russians evacuate Bukovina. War party successful in Greek elections.

JUNE 16TH. British success north of Hooge. French advance in the valley of the Fecht.

JUNE 19. Retreat of Russians from the Grodek line to positions in front of Lemberg.

JUNE 20TH. Zolkiev and Rava Ruska captured by the Austro-German forces.

JUNE 21ST. Further French progress towards Souchez. Metzeral captured by the French. Successful French and British attack in the Gallipoli Peninsula.

JUNE 22ND. Recapture of Lemberg by the Austro-German Armies. Sondernach, south of Metzeral, captured by the French.

JUNE 26th. General Sukhomlinoff, Russian Minister for War, resigns. General Polivanoff succeeds him.

JUNE 27th. Germans capture Halicz. Russian retreat from the line of the Dniester to the Gnila Lipa.

JUNE 28TH. British attack on Achi Baba in Gallipoli; the Boomerang Redoubt and three lines of Turkish trenches captured. Germans bombard Windau on the Baltic coast and lose a torpedo boat by striking a mine.

JUNE 29TH. German offensive between the Vieprz and the Bug; Germans repulsed on the Dniester. French progress south of Souchez. Turkish attempt to retake trenches in Gallipoli beaten off. Allied forces advancing in the Central Cameroons occupy the town of Ngamdere.

JUNE 30TH. Germans storm Russian positions on the Gnila Lipa and cross the river. Austro-German advance from Tomaszow; Russians retreating between the Bug and the Vistula.

Violent German attack in the Argonne between the Binarville road and the Four de Paris repulsed. French capture trenches in Gallipoli. H. M. S. Lightning damaged by a mine or torpedo, 14 of the crew missing.

JULY 1ST. The Armenian, a Leyland liner, chased, shelled, and finally sunk by a German submarine; 29 of the crew, mostly Americans, drowned. German offensive against the Lublin-Cholm railway; they capture Zamosc and Krasnik; Russians retreating. Fierce fighting in the Argonne.

JULY 2ND. Naval action between Russian and German warships in the Baltic off the coast of Gothland; German battleships Pommern torpedoed and sunk by British submarine; German mine-laying cruiser Albatross chased by four Russian cruisers and ran ashore. Crown Prince repulsed in the Argonne between the Binarville Road and Blanleuil. Italian battle for the Carso plateau on the road to Trieste, begun. Turkish attacks in Gallipoli heavily repulsed.

JULY 3RD. German attacks on the Calonne trench on the heights of the Meuse repulsed. German sea-plane and aeroplane off Harwich chased away by British machines. South African offer to organize and equip an oversea volunteer contingent.

JULY 4TH. German offensive against the Lublin-Cholm railway stayed at Krasnik: slight German progress in the La Haye district between the Meuse and Moselle. British force from Aden, which had fallen back on Lahej before a Turkish force from the Yemen, attacked and retires to Aden. The German cruiser Konigsberg, which had sheltered in October up the Rufigi River in German East Africa, destroyed by the monitors Severn and Mersey. Determined attack by the Turks in Gallipoli repulsed with heavy loss.

JULY 5TH. Archduke Joseph of Austria heavily defeated by the Russians north-east of Krasnik on the line Urzedow-Wilkolaz-Bychawa; Germans repulsed between the Vieprz and the Bug. Fighting round Souchez; Arras bombarded.

JULY 6TH. German attack on Russian lines at the Ravka. British capture 200 yards of German trenches south-west of Pilkem to the north of Ypres. Germans attack at the St. Mihiel wedge, and pierce the French line in one place. Offer of the South African Union to raise an Imperial contingent accepted.

JULY 7TH. French attacks at souchez carry a line of German trenches. Italian attacks on the bridge-head at Gorizia.

JULY 8TH. German attempt to regain trenches south-west of Pilken repulsed. French recapture some lost trenches between Fey-en-Haye and the Bois le Pretre ; French success at Fontenelle north of St. Die ; Germans recapture part of trenches at Souchez. Italian cruiser Amalfi sunk by Austrian submarine in the Upper Adriatic. National Registration Bill passed the House of Commons.

JULY 9TH. Conquest of German South-West Africa ; Governor Leitz surrenders all the German forces to General Botha. Austro-German attacks on the Lublin front repulsed. Renewed German attacks at Pilken repulsed.

JULY 10TH. Text of the German reply to the United States Note *re* the Lusitania published ; German action defended and proposal made that Americans should travel in their own or neutral ships, specially marked and with sailings notified in advance

JULY 11TH. Sir John French's despatches on the Second battle of Ypres published. French lose ground south of Souchez in consequence of attack with asphyxiating bombs ; German attacks on Fresnes on the St. Mihiel wedge. Bombs dropped on Venice by Austrian aeroplane.

JULY 12TH. Further British advance in Gallipoli ; two lines of trenches carried ; French advance to the edge of the Keveres Dere. German attack in " The Labyrinth " repulsed ; French regain portion of lost trenches at Souchez.

JULY 13TH. French aerial squadron bombard and destroy German stores at Vigneulles in the St. Mihiel wedge, and throw bombs at Libercourt between Douai and Lille. Crown Prince captures portion of the French line at Vienne le Chateau in the Argonne, but is finally repulsed.

JULY 14TH. German offensive on the Narev front ; Prasnysh captured ; Russians retire to their second line of defences. New German offensive developing in the direction of Riga. French capture a line of trenches south of Souchez. Fighting at Nasiriyeh where the Turks had been driven from their position on the Euphrates by a British expedition from Qurnah. National Registration Bill passed the third reading in the House of Lords.

JULY 15TH. Crown Prince's army repulsed in the Argonne. German unsuccessful attack in Lorraine near Leintrey ; Germans endeavour to recapture trenches at Souchez.

JULY 16TH. German heavy losses along the Vieprz front French aerial squadron drops bombs on railway station at Chauny on the Aisne.

JULY 17th.—Von Hindenburg's offensive forcing the Russians back towards the line of fortresses of the Narev. Von Mackensen's offensive towards the Lublin-Cholm railway breaks the Russian line at Krasnostav. Italian successes on the Cadore frontier.

JULY 18th.—Russians fall back from Bzura-Ravka front to the Blonie line; the fortress of Novo-Georgievsk in action; Germans cross the Bug near Sokal. German attack west and south-west of Souchez repulsed. Italian cruiser Giuseppe Garibaldi sunk by Austrian submarines in the Adriatic. Italian success on the Isonzo; 2,000 prisoners and guns captured.

JULY 19th.—German attack south-east of Les Eparges repulsed. French aeroplanes drop shells on the junction station of Challerange, to the south of Vouziers; French dirigible drops bombs on railway station and ammunition depot at Vigneulles, south-east of Les Eparges.

JULY 20th.—Heavy fighting on the Narev before the fortresses of Rozhan, Obryte Pultusk, and Novo Georgievsk. French advance up the valley of the Fecht towards Munster, French aeroplanes bombard the station at Colmar, and also at Conflans-en-Jarny on the Verdun-Metz railway, Italian progress on the Isonzo towards Gorizia.

JULY 21st.—Russians on the line of the Vistula south of Warsaw; Warsaw in peril and Ivangorod threatened, German offensive in Courland progressing, Austro-German army driven across the Bug in the Sokal district. British success at Hooze, Turkish forces in the Aden district driven back to Lahej.

JULY 22nd.—German advance towards Riga progressing, French progress near Bagatelle: French offensive towards Munster continues, Italian advance on the Isonzo front from Tolmino to Monfalcone; Italian airmen raid the Trieste railway. Convention signed ceding to Bulgaria the Turkish portion of the Dedeagatch railway with the territory between the River Maritza and the frontier.

JULY 23rd.—Germans cross the Narev between the forts of Obyrte Pultusk and Rozhan. Austrian warships bombard Ortona and the Tremite Islands; Italian aeroplanes bombard Innsbruck. Turkish attack in Gallipoli repulsed. Third American Note to Germany *re* the "Lusitania" published.

JULY 24th.—Von Mackensen fought to a standstill on the Lublin-Cholm front, French storm German defences from La Fontenelle to Launois in the Vosges. Turkish and Arab troops heavily defeated on the Euphrates.

JULY 25th.—German progress along the Narev; critical position of Warsaw and Russian plans for evacuation. Battle of the Carso developing in Italian favour; Austrian Taube drops bombs on the barracks at Verona. Nasiriyeh on the Euphrates captured from the Turks. American steamer Leelanaw, Archangel to Belfast, sunk by German submarine, but crew saved.

JULY 26th.—German troops across the Narev checked. Occupation of the Island of Pelagossa in the Adriatic by Italian naval forces announced, and Austrian submarine and aeroplane supply station at Lagosta Island destroyed by French destroyer. Italians established on Monte San Michele: Austrian position and 3,200 prisoners taken at Monte de Sei Busi. German destroyer, believed to be of G.196 class, sunk by British submarine in the North Sea.

JULY 27th.—Slow German progress along the Narev. French carry further trenches in the Fecht Valley towards Munster. German assaults at Souchez repulsed. Turkish report of sinking of French submarine "Mariotte" in Dardanelles. Mr. Asquith announces total British naval casualties to July 20 as 9,106, and total military casualties to July 18 as 330,995.

JULY 28th.—Von Woyrsch's army force the Vistula between Warsaw and Ivangorod; heavy fighting on the Narev front; Austrians driven across the Bug near Kamienka.

JULY 29th.—Von Mackensen breaks through the Russian line on the Lublin-Cholm railway. German aeroplanes drop bombs on Nancy; French aeroplanes bombard Paschendaele on the Ypres-Roulers railway, German bivouacs in the district of Longueval to the west of Combres, German defence works near Rheims, the stations of Chatel in the Argonne and Burthecourt in Lorraine. and an asphyxiating gas factory at Dornach in Alsace.

JULY 30TH.—Germans recapture by use of "flame projectors" part of trenches lost at Hooge, but lose them again. French aeroplanes bombard stations of Dettweiler near Pfalzburg, Freiburg, and Chauny. petrol-producing factories at Peschelbronn between Hagenau and Weissenburg, and aviation sheds at Pfalzburg. Italians attack Austrian second line of defence east of Gradisca to which they have withdrawn. Leyland liner Iberian sunk by German submarine; six of the crew, including three Americans, killed by shell-fire.

JULY 31ST.—Russians evacuate Lublin, and Austro-German forces seize the Lublin-Cholm Railway. French aeroplane squadron drops bombs on aviation camp at Dalheim near Morhange and drives off German marchines at Chateau Salins.

AUGUST. 1ST.—German held on the Blonie line west of Warsaw. Heavy fighting on the Narev. German transport sunk by British submarine in the Baltic.

AUGUST. 2ND.—Admiralty announce success of British submarine in Sea of Marmora, steamer torpedoed off Mudania Pier, and a small steamer at Karabogha Bay. Germans occupied Mitau, 26 miles south-west of Riga. Successful advances by Australian and N. Zealand A. C. in the Gallipoli peninsula.

AUGUST 4TH.—Anniversary of the outbreak of war; religious services throughout the Empire. British casualties during the year *killed*; Officers, 4,965; men 70,992: *wounded*; Officers; 9,973; men 241,086; *missing*: Officers, 1,501; men 53,466; *total*; Officers, 16,439; men 365,544.

AUGUST 5TH.—Warsaw evacuated by the Russians.

AUGUST 6TH.—German attacks on Kovno and Ossievitz. British landing at Suvla Bay in the Gallipoli peninsula.

AUGUST 7TH.—Renewed attacks on Kovno repulsed.

AUGUST 8TH.—A small patrol boat, H. M. S. Ramsay, sunk in the North Sea by German auxiliary cruiser Meteor. Meteor scuttled to avoid capture. British auxiliary cruiser sunk by a submarine in Norwegian waters. Hard fighting in the Argonne. Attempt by German fleet to force the entrance of the Gulf of Riga repulsed. Turkish battleship Barbarossa, gunboat Berk-i-Satvet and a transport sunk in the sea of Marmora by British submarines. Occupation of Bushire.

AUGUST 9th.—Recapture by the British of the trenches at

Hooze, lost on July 30th. Zeppelin raid in England; 25 casualties. Russians evacuated Ossievitz.

AUGUST 10TH.—H. M. S. Lynx, torpedo-boat destroyer, sunk by a mine in the North Sea. Lomza evacuated by the Russians. Russians defeat of 11 Turkish divisions in the Caucasus. Successful advance by the Australians and New Zealand Army Corps in the Gallipoli peninsula.

AUGUST 15TH.—Cotton declared absolute contraband by Great Britain and France. British advance at Suvla Bay. Bombardment of Dilbar in the Persian Gulf.

AUGUST 16TH.—Bombardment of towns on the North-west coast of England by a German submarine; no casualties and very little damage.

AUGUST 17TH.—Zeppelin raid in England 46 casualties. Repulse with loss of insurgent tribesmen at Rustam in the Peshawar district.

AUGUST 19TH.—White Star liner Arabic torpedoed off south coast of Ireland, 48 casualties including Americans. British submarine E. 13, having grounded on Danish coast bombarded by German destroyers until Danish torpedo boats intervened. Naval action in Gulf of Riga. Russian gun-boat Sivoutch and a German destroyer sunk.

AUGUST 20TH.—German fleet left Gulf of Riga, having lost since August 16th 2 cruisers and 8 destroyers damaged or sunk. Damage to German battle cruiser Moltke by a British submarine in the Baltic reported. Fall of Novo-Georgievsk.

AUGUST 21ST.—Counter attack by a Turkish division repulsed in the Gallipoli peninsula. British advance and capture of ground of "great tactical value."

AUGUST 22ND.—Declaration of war with Turkey by Italy.

AUGUST 23RD.—German destroyers sunk by 2 French destroyers off Ostend.

AUGUST 24TH.—Casualties of Prussians alone amount to 1,740,836 killed wounded and missing. not counting 645 Casualty lists of other parts of the German Empire.

AUGUST 25TH.—Successful raids by Allied air-craft on German Camps in France.

AUGUST 26TH.—Renewal of German advance in the district of Vladimir Volinski in Western Russia, Russian evacuation of

Brest-Litovski.

AUGUST 27TH.—German submarine destroyed off Ostend by a British aviator, French air raid on Mulheim in Baden.

AUGUST 28TH.—Allied air-raid on German aviation sheds at Ghent. Commencement of incessant bombardment of German front in the west.

AUGUST 29TH.—Renewal of Austro-German advance in Eastern Galicia. Repulse of trans-frontier tribesmen near Chakdara in the Swat Valley.

AUGUST 30TH.—Russian success on R. Strypa in Galicia. Capture by the British of an important tactical feature in the north-west of the Gallipoli peninsula.

SEPTEMBER 1ST.—General Russki appointed C. in C of Russian troops in northern region, General Yanushkevich appointed Assistant Viceroy of the Caucasus.

SEPTEMBER 2ND.—German Ambassador to the U.S.A. promised that liners should not be sunk without warning, provided liners did not resist or attempt to escape. Russians evacuated Grodno. Hard fighting on the R. Dvina.

SEPTEMBER 3RD.—Russians retired to right bank of R. Dvina at Freidrichstadt.

SEPTEMBER 4TH.—Allan liner Hesperian torpedoed without warning near south coast of Ireland, 25 casualties.

SEPTEMBER 5TH.—Complete defeat of Mohmands at Skabkadr on N. W. Frontier of India, enemy's casualties about 1100, British Casualties 111.

SEPTEMBER 6TH.—Tsar assumes Command of the Russian forces in western Russia Grand Duke Nicholas appointed Viceroy of the Caucasus.

SEPTEMBER 7TH.—Russians take the offensive in Eastern Galicia.

SEPTEMBER 8TH.—German Admiralty announces the loss of submarine U 27.

SEPTEMBER 9TH.—Successful action at Bushire in the Persian Gulf.

SEPTEMBER 10TH.—Presistent German attacks on line Osery-Skidel in western Russia.

SEPTEMBER 11TH.—Zeppelin raid on East coast of England no casualties. Russian captures in East Galicia since September

7th amount to 383 officers, 17,000 men, 33 guns 66 machineguns Recall of Austrian Ambassador demanded by U. S. A. on account of undiplomatic behaviour.

SEPTEMBER 12TH.—Russian capture another 39 officers and 2,500 men in E. Galicia. German advance on Vilna, the Vilna, Dvinsk railway and east of Skidel. Zeppelin raid in England, no casualties.

SEPTEMBER 13TH.—Zeppelin raid in England, no casualties. German aeroplane raid on Kent, 4 casualties. French air raid on Treves, Dommary, Baroncourt, Donaueschingen and Marbach. Austrian torpedo-boat sunk by French submarine in the Adriatic. Russian advance in Volhynia. Total Austrian and German prisoners taken by the Russians from August 13th to September 13th amount to over 40,000.

SEPTEMBER 14TH.—French air raid south east of Metz. Russians advance from R. Sereth to R. Strypa in E. Galicia.

SEPTEMBER 15TH.—Allies bombardment of German positions on the western front continues. French official announcement, of German submarines in the Bay of Biscay. Russian line runs from Riga, east of Dvinsk, Vilna, Slonim, Pinsk, Royno, and Dubuo, thence east of Tarnopol, west of R. Strypa to the Dniester and thence along the Dniester to Roumanian frontier.
